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ABSTRACT

This document is part 2 of the workbook for grade 7 pupils in the Comprehensive Instructional Management System, a unified mathematics curriculum for kindergarten through grade 7. Each objective is developed by a variety of strategies, with mastery of objectives diagnosed through a testing component. The activities in the student workbook are designed to provide practice in mastering the performance objectives, following the sequence in the teacher's manual. Over 130 performance objectives are included in this part of the grade 7 workbook, designed to develop fraction skills, ratio and proportion ideas, probability and statistics concepts, number theory concepts, and other mathematical topics. (MNS)

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CIMS

COMPREHENSIVE INSTRUCTIONAL MANAGEMENT SYSTEM

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A Cyclical Mathematics Curriculum

Workbook Part 2

NEW YORK CITY BOARD OF EDUCATION
OFFICE OF CURRICULUM DEVELOPMENT AND SUPPORT
DIVISION OF CURRICULUM & INSTRUCTION

SE 045 532

03-2007-32

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FOREWORD

The Comprehensive Instructional Management System (CIMS) is a unified mathematics curriculum for grades K-7. The curriculum is cyclical in design, and reflects the most recent New York City and New York State guidelines.

Utilizing the experience of our system's teachers, we have developed a teacher-designed curriculum that includes a rich selection of classroom-tested successful mathematics activities. The major goal of the CIMS mathematics project is to provide the classroom teacher with a well-structured, objective-based curriculum. All objectives are supported by a variety of strategies. Student mastery of these objectives is readily diagnosed through the system's testing component.

The curriculum format is structured to allow the teacher to determine the ability level of the students in the topic under study, and to permit the students to move forward at their individual rates. Each module of instruction provides the teacher with a set of related performance objectives. These objectives are supported by activities which probe and develop the students' readiness to undertake new skills and concepts. Further reinforcement is given to mastery of the objectives through accompanying student workbooks.

It is hoped that this curriculum will not only assist teachers in developing vital mathematics instruction, but will serve to expand and enrich students' mathematics skills.

Charlotte Frank

Charlotte Frank,
Executive Director
Division of Curriculum and Instruction

ACKNOWLEDGMENTS

The Comprehensive Instructional Management System (CIMS) was developed as a project of the Division of Curriculum and Instruction, Charlotte Frank, Executive Director. Dr. Peter Negroni, Community School Superintendent CSD 12; Dr. Harvey Garner, Community School Superintendent CSD 18; Carlos Edwards, Community School Superintendent CSD 23, and Joseph Pacheco, Community School Superintendent CSD 32 supervised the overall development of the CIMS program within their respective districts.

Morris Freedman, Director of the Office of Curriculum Development and Support; Irwin Kaufman, Director of Mathematics; Kenneth Bates, Director of CIMS; Maria DeSalvio, Assistant Director of Mathematics; Arthur Flug and Doreen Genkin, Assistant Directors of CIMS and Gene Menchini, Program Manager, Distributive Systems, Office of Data Processing Coordination provided overall supervision of this project.

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Allan Dobrin, Office of Chief Administrator; Bebe Bernstein, Administrator, Curriculum Development Unit of the Office of Program Development and Geraldine Silver and Susan Wieder, Special Education Coordinators provided guidance and support in addressing these special needs.

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To The Teacher:

The activities in the CIMS student workbook are designed to provide the pupils with practice in mastering the curriculum's performance objectives and follows the sequence of the CIMS teacher's manual. Each workbook activity page lists the corresponding performance objective number in the upper left hand corner. The activity page numbers are identical to those found in the CIMS teacher's manual.

To The Student:

This mathematics workbook will help you to practice many of the new ideas your teachers have presented. Each worksheet has examples of the material you have studied in your daily mathematics lesson. As you proceed through this workbook, you will notice that you have learned many skills and will be ready to move on to more difficult ones.

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.07.03.01	Compute the difference of two decimals arranged vertically with the minuend having fewer decimal places than the subtrahend	22a
7.07.03.02	Solve verbal problems related to skills learned in this module	22b
7.13.02.01	Make a model/chart of data in a problem	23a
7.13.02.02	Use a model/chart to solve a problem by working backwards	23a
7.14.02.01	Change an improper fraction to a mixed number or a whole number	24a
7.14.02.02	Change a mixed number or a whole number into an improper fraction	24b
7.14.02.03	Determine the least common denominator (LCD) of two or more fractions	24c
7.06.01.01	Find the average of two or more fractions	25a
7.06.01.02	Raise a fraction to an indicated power	25b
7.06.02.01	Compute the quotient of two fractions using the algorithm: $\frac{a}{b} \div \frac{c}{d} = \frac{a}{b} \times \frac{d}{c} = \frac{axd}{bxc}$	26a
7.06.02.02	Solve verbal problems related to skills learned in this module	26b
7.06.03.01	Compare two numbers by naming the ratio of one to another	28a
7.06.03.02	Write equivalent ratios for a given ratio	28b
7.06.03.03	Identify a proportion as a statement of equality between two ratios	28c
7.06.03.04	Identify means and extremes in a proportion ...	28d
7.06.03.05	Determine if two ratios form a true proportion	28e
7.06.03.06	Solve verbal problems involving related to learned in this module	28f
7.09.04.01	Identify a diameter as the longest chord passing through the center of a circle	30a

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.09.04.02	Use the relationship between the radius and the diameter (D = 2R)	30b
7.09.04.03	Identify the circumference as the distance around the circle	30c
7.09.04.04	State the definition of π as the ratio of the circumference of a circle to the diameter ...	30c
7.09.04.05	State the decimal and fractional approximations for π	30c
7.09.04.06	Use the formula for circumference of a circle where the radius ($C = 2\pi r$) or the diameter ($C = \pi d$) is given	30c
7.09.04.07	Solve verbal problems related to skills learned in this module	30d
7.10.01.01	Select the appropriate unit for measuring length	32a
7.10.01.02	Measure a given line segment with a standard ruler in English units to the nearest 1 in., $\frac{1}{2}$ in., $\frac{1}{4}$ in., $\frac{1}{8}$ in.	32b
7.10.01.03	Convert a given measure of length to another equivalent unit of length	32c
7.10.01.04	Solve verbal problems related to skills learned in this module	32d
7.10.02.01	Compute the sum of different units of length, time, weight, liquid measure	34a
7.10.02.02	Compute the difference of a measurement given in linear units, time units, weight units, or liquid volume units	34b
7.10.02.03	Compute the product of a measurement given in linear units, time units, weight units or liquid volume units	34c
7.10.02.04	Compute the quotient of a measurement given in linear units, time units, weight units, or liquid volume units	34d

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.10.02.05	Solve verbal problems related to skills learned in this module	34e
7.10.03.01	Select the appropriate unit of linear, volume and weight measure	35a
7.10.03.02	Describe the relationship between/among metric prefixes using base ten and identify the symbols for metric units	35a
7.07.04.01	Determine and place the decimal point in the product of a given multiplication example if the digits of the product are given	36a
7.07.04.02	Solve verbal problems related to skills learned in this module	36b
7.07.05.01	Compute the quotient by correctly placing the decimal point given a division example in which the divisor is a power of 10	38a
7.07.05.02	Compute the quotient to a specified decimal place given a division example in which the divisor is a whole number or a decimal	38b
7.07.05.04	Solve verbal problems related to skills learned in this module	38c
7.12.01.01	Construct a sample space for various experiments	40a
7.12.01.02	Read and use the expression P(A) to represent the probability of event A	40b
7.12.01.03	Write the probabilities involved with simple experiments: flipping a coin, rolling a die .	40c
7.12.02.01	State that the sum of the probabilities in a given experiment is always 1	42a
7.12.02.02	State and use the meaning of equally likely events	42b
7.12.02.03	State and use the meaning of complementary events to their probabilities	42c
7.11.03.01	State the meaning of a variable	43a

55

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.11.03.02	Determine the value of an equation	43b
7.11.04.01	Recognize a functio- in the form y = ax	44a
7.11.04.02	Recognize a function in the form y = ax + b ...	44a
7.07.06.01	Convert a fraction to a terminating or non-terminating (repeating) decimal fraction	45a
7.07.06.02	Convert a terminating or non-terminating (repeating) decimal to a fraction	45b
7.06.04.01	Convert a fraction whose denominator is a factor of 100 to a decimal and a percent	46a
7.06.04.02	Convert a mixed number to a decimal and a percent	46b
7.06.04.03	Convert a whole number percent to a decimal fraction	46c
7.06.05.01	Solve a verbal problem to find the amount of discount	48a
7.06.05.02	Solve a verbal problem to find the amount of sales tax	48b
7.06.05.03	Solve a verbal problem to find simple interest (Interest = Principal x Rate x Time)	48c
7.12.03.01	Construct, read and interpret a multiple bar graph (involving a two bar comparison)	50a
7.12.03.02	Read and interpret a multiple line graph (involving a two line comparison)	50b
7.12.03.03	Construct, read and interpret a circle graph (involving fractional or percent comparisons)	50c
7.13.03.01	Make and refine a guess about his/her environment	51a
7.13.03.02	Check guesses against problem conditions	51a
7.10.04.01	Use the formulas for finding the perimeter of a rectangle, triangle, square	53a
7.10.04.02	Find the area of polygons by using the appropriate formulas	53b

58

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.10.04.03	Compute the volume of a rectangular prism and a cube in standard units of measure using the formulas, V = L x W x H and V = B x H	53c
7.10.04.04	Solve verbal problems related to skills learned in this module	53d
7.10.05.01	Define and identify a semicircle	55a
7.10.05.02	Find the length of a semicircle	55b
7.10.05.03	Find missing lengths of irregular figures by applying the properties involving opposite sides of a rectangle	55c
7.10.05.04	Find the perimeter of irregular geometric figures (use π - 3.14)	55d
7.09.05.02	Identify and count the number of faces, edges, vertices and bases in a given rectangular prism or triangular prism	56a
7.01.04.01	Identify and construct triangular numbers	57a
7.01.04.02	Identify the patterns for triangular numbers ..	57a
7.01.04.03	Construct a square pattern	57b
7.01.04.04	Identify patterns for squares	57b
7.01.05.01	Construct Pascal's Triangle	58a
7.01.05.02	Identify patterns in addition of rows	58a
7.01.05.03	Identify patterns in Pascal's Triangle	58a
7.01.06.01	List the first 10 numbers in the Fibonacci sequence	59a
7.01.06.02	Identify patterns with Fibonacci numbers	59a
7.14.03.01	Draw tree diagrams to represent the outcomes of problems	60a
7.14.03.02	Determine outcomes, events and probability when tossing one or more coins	60b
7.14.04.01	Define and make permutations	62a

57

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.14.04.02	Use the counting principle to determine the number of permutations that can be made with a set of objects by formula	62a
7.12.04.01	Obtain the mode from the frequency table	63a,63b
7.12.04.02	Recognize how changes in data affect the mean, median and mode	63c
7.12.05.01	Determine the probability of two independent events occurring together by using a sample space	64a
7.12.05.02	Determine the probability of either of two outcomes occurring by using a sample space ..	64a
7.13.04.01	Identify and extend a numerical pattern	65a
7.13.04.02	Use patterns to solve problems	65a
7.14.05.01	Identify an integer and use positive and negative integers in real life situations ...	66a
7.14.05.02	Locate positive and negative integer on a number line	66b
7.14.05.03	Compare and order positive and negative integers	66c
7.08.01.01	Subtract positive and negative integers using the inverse operation of addition	67a
7.08.01.02	Subtract a negative integer from a negative integer using the inverse operation of addition	67b
7.08.02.01	Multiply a positive whole number by another positive whole number	68a
7.08.02.02	Multiply a negative whole number by a positive whole number	63b
7.08.02.03	Multiply a negative whole number by another negative whole number	68b
7.08.03.01	Compute the quotient with a positive dividend and a positive divisor	69a

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.08.03.02	Compute the quotient with a positive dividend and a negative divisor	69b
7.08.03.03	Compute the quotient with a negative dividend and a positive divisor	69b
7.08.03.04	Compute the quotient with a negative dividend and a negative divisor	69c
7.09.06.01	Identify a pair of parallel lines	71a
7.09.06.02	Determine pairs of alternate interior angles and corresponding angles formed by a transversal through parallel lines	71a
7.09.06.03	Apply the properties of parallel lines to numerical problems	71a
7.09.07.01	Find the sum of the angle measures of a polygon	73a
7.09.07.02	Find the sum of the angles of any polygon in numerical problems	73b
7.09.07.03	Identify a regular polygon (equilateral and equiangular)	73c
7.09.07.04	Find each interior angle of a regular polygon in numerical problems	73d
7.01.07.01	Use set notation to list the members of a set from a description of the set	75a
7.01.07.02	Identify as a finite set a given set with a specific number of elements	75b
7.01.07.03	Identify as an infinite set a given set with an unlimited number of elements	75b
7.01.07.04	Determine whether or not two sets are equal or equivalent	75c
7.01.07.05	Identify an empty set or null set as a given set with no elements	75c
7.01.07.06	State the definition of consecutive numbers, even numbers and odd numbers in word problems	75d
7.01.08.01	Determine subsets of a given set	77a

REVISED
TABLE OF CONTENTS
LEVEL 7

P.O. NUMBER	PERFORMANCE OBJECTIVE DESCRIPTION	PAGE NUMBER
7.01.08.02	Determine the number of subsets of a finite set of up to eight elements using the expression 2^n, where n is the number of elements in the set	77b
7.01.08.03	Represent two disjoint sets with a Venn diagram	77c
7.01.08.04	Represent a set and a subset with a Venn diagram	77d
7.01.08.05	Represent and list the union of two given sets on a Venn diagram	77e
7.01.08.06	Represent and list the intersection of two given sets on a Venn diagram	77f
7.01.08.07	Find the Least Common Multiple (LCM) of the elements of two given sets of multiples	77g
7.01.09.01	Determine whether a number is prime or composite	78a
7.01.09.02	List and order the prime factors of a number ..	78b
7.01.09.03	Express prime factors in exponential notation .	78c
7.01.10.01	Find the square of a number	80a
7.01.10.02	List the squares of numbers	80b
7.01.10.03	Identify the square root of a number that is a perfect square	80c
7.01.10.04	Find the square root of a decimal fraction which is a perfect square	80d
7.01.10.05	Solve verbal problems related to skills learned in this module	80e

P.O. 7.07.03.01

NAME:_____ CLASS:_____ DATE:_____

Subtract.

1. 3.75 - 1.727

2. .094 - .08

3. 14.9 - 1.73

4. 100.05 - 26.2

5. 8.041 - 3.22

6. 52 - 7.06

7. 9 - .253

8. 6.9 - .472

9. 12.02 - 8.119

10. 40.08 - 18.7

11. 27.63 - 15.008

12. 61.3 - .102

P.O. 7.07.03.02

NAME:_____ CLASS:_____ DATE:_____

Solve each problem.

1. Joan has two packages that weigh a total of 4.8 pounds. One package weighs 1.95 pounds. How much does the other package weigh?

2. Juan needs $1.43 to purchase a model car. He now has $.83. How much more money does he need in order to buy the model car?

3. The average yearly rainfall for Lowell County is 32.06 inches. Last year 29.75 inches of rain were recorded. How many inches below average was this?

4. Two sheets of plastic have a combined thickness of 1.08 inches. One sheet is .675 inch thick. What is the thickness of the other sheet?

5. Consider the numbers named by 4.32; 432; 43.2; and .432. What is the difference between the two greatest numbers?

6. Jane gave the clerk a $20 bill. The amount of her purchases was $14.32. How much change should she receive?

P.O. 7.13.02.01-.02

NAME:_____ CLASS:_____ DATE:_____

1. Draw a chart or table of the data in the problem.
2. Complete the chart, working backwards where necessary. Use the steps to help you.

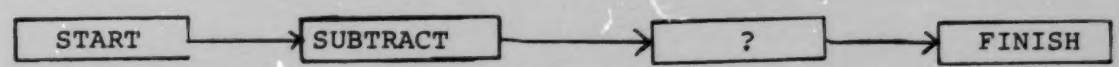
1. In my friend's backyard there are bicycles and tricycles. I counted 19 wheels. Make a chart of the possible number of bicycles and tricycles in the backyard.

2. When you roll two dice, what fraction of the possible products are single digit numbers?

3. If you toss three quarters, how many different ways can they possibly land?

4. How many odd numbers are there between 24 and 96?

5. Finish this chart.



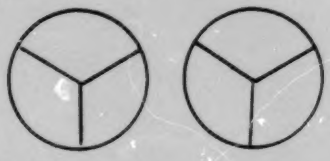
START	8	15	6	12			
FINISH	21	42	15		60	45	81

P.O. 7.14.02.01

NAME: _____ CLASS: _____ DATE: _____

Shade each improper fraction. Change each improper fraction to a mixed number or a whole number. Simplify the fraction where necessary.

$\frac{10}{4} =$ $2\frac{2}{4} = 2\frac{1}{2}$

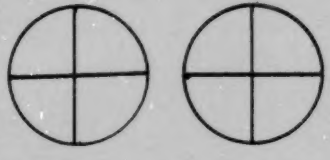


$\frac{5}{3} =$ _____

$\frac{10}{8} =$ _____

$\frac{8}{2} =$ _____

$\frac{16}{6} =$ _____



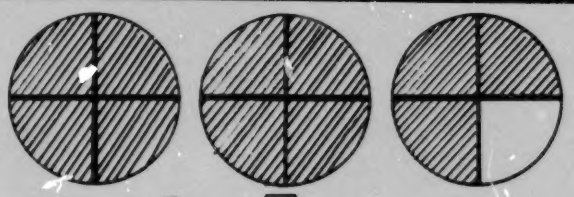
$\frac{7}{4} =$ _____

$\frac{6}{3} =$ _____

P.O. 7.14.02.02

NAME: _____ CLASS: _____ DATE: _____

Write an improper fraction for each whole or mixed number.
Show all work.



$2\frac{3}{4} = \frac{11}{4}$

$4 \times 2 = 8$

$8 + 3 = 11$

$6 = \frac{\square}{8}$	$9 = \frac{\square}{9}$	$16 = \frac{\square}{2}$	$11 = \frac{\square}{5}$
$4 = \frac{\square}{12}$	$5 = \frac{\square}{20}$	$6 = \frac{\square}{12}$	$7 = \frac{\square}{7}$
$4\frac{3}{4} = \frac{\square}{4}$	$5\frac{7}{8} = \frac{\square}{8}$	$8\frac{2}{5} = \frac{\square}{5}$	$9\frac{2}{3} = \frac{\square}{3}$

P.O. 7.14.02.03

NAME:_____ CLASS:_____ DATE:_____

Find the least common denominator for each group of fractions.

$\frac{1}{3}$ and $\frac{1}{5}$

{3,6,9,12,15,18,21,24,27,30}
{5,10,15,20,25,30,35,40,45,50}

LCD = 15

$\frac{1}{4}$ and $\frac{1}{9}$

LCD =

$\frac{1}{8}$ and $\frac{1}{32}$

LCD =

$\frac{2}{9}$ and $\frac{4}{5}$

LCD =

$\frac{1}{12}$ and $\frac{1}{4}$

LCD =

$\frac{2}{7}$ and $\frac{1}{4}$

LCD =

$\frac{2}{5}$ and $\frac{3}{20}$

LCD =

$\frac{1}{7}$ and $\frac{1}{5}$

LCD =

$\frac{1}{8}$ and $\frac{1}{12}$

LCD =

$\frac{2}{5}$ and $\frac{3}{6}$

LCD =

$\frac{2}{3}$ and $\frac{4}{9}$

LCD =

$\frac{1}{8}$ and $\frac{2}{3}$

LCD =

P.O. 7.06.01.01

NAME: _____ CLASS: _____ DATE: _____

Find the average of each pair of numbers. Match it to the answers on the right hand side of tne page.

1. Sample

$8\frac{1}{4} + 5\frac{15}{16} =$

$8\frac{8}{32} + 5\frac{30}{32} = 13\frac{38}{32} = 14\frac{6}{32} \div 2 = 7\frac{3}{32}$

2. $9\frac{7}{12} + 1\frac{3}{4} =$

3. $2\frac{2}{9} + 7\frac{5}{6} =$

4. $3\frac{2}{3} + 2\frac{3}{4} =$

5. $2\frac{1}{4} + 4\frac{2}{5} =$

$3\frac{5}{24}$

$7\frac{3}{32}$

$3\frac{13}{40}$

$5\frac{1}{36}$

$5\frac{2}{3}$

P.O. 7.06.01.02

NAME: _____ CLASS: _____ DATE: _____

Raise each base to its indicated power.

1. Sample

$6^3 = 6 \times 6 \times 6 = 216$

2. $\left(\frac{2}{3}\right)^3 =$

3. $\left(\frac{1}{6}\right)^2 =$

4. $\left(\frac{7}{4}\right)^2 =$

5. $\left(1\frac{2}{3}\right)^3 =$

6. $8^4 =$

7. $\left(4\frac{1}{2}\right)^2 =$

8. $2^3 =$

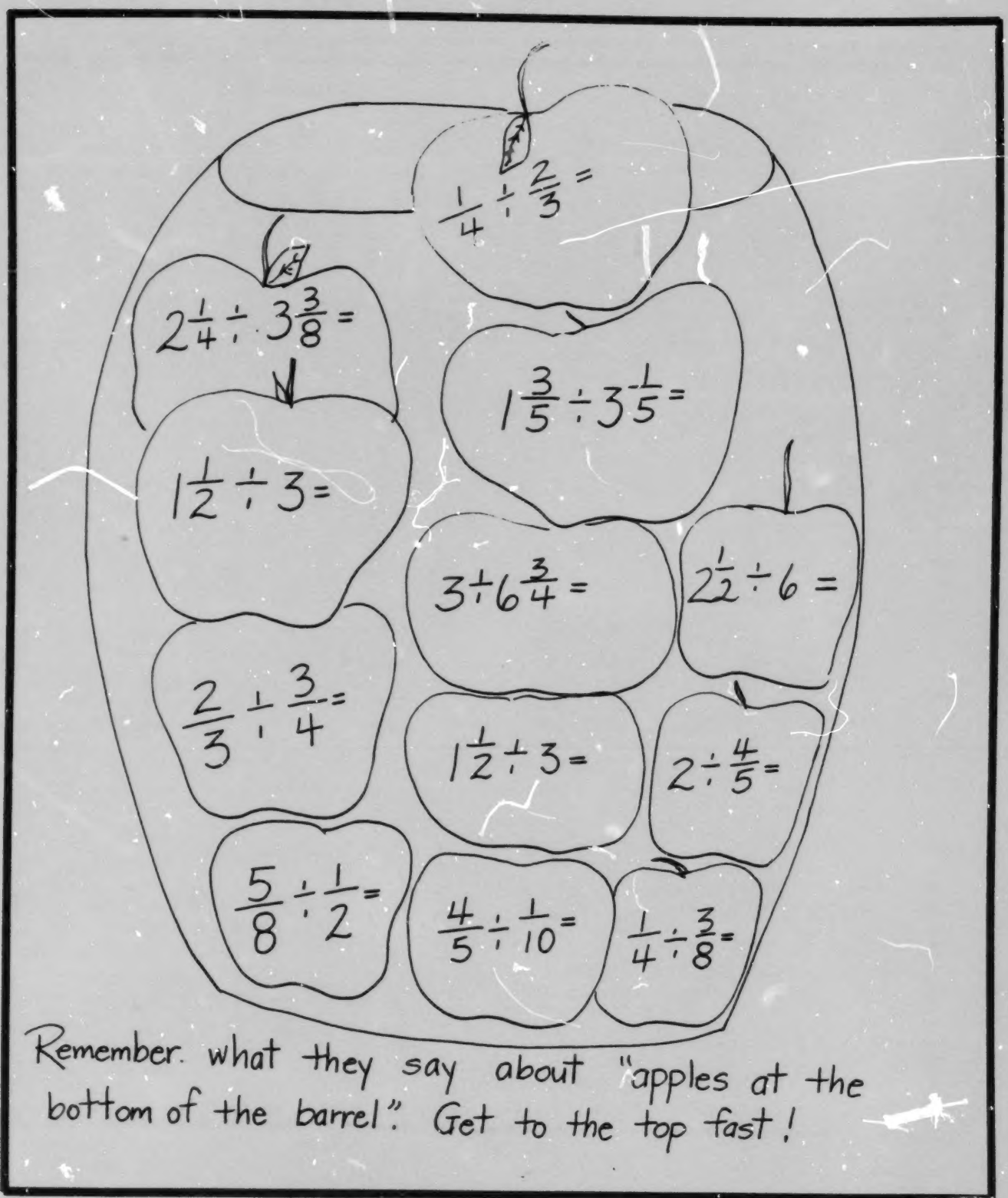
9. $\left(3\frac{1}{3}\right)^3 =$

10. $\left(5\frac{1}{8}\right)^2 =$

P.O. 7.06.02.01

NAME: _____ CLASS: _____ DATE: _____

Write each quotient in simplest form.


$\frac{1}{4} \div \frac{2}{3} =$
$2\frac{1}{4} \div 3\frac{3}{8} =$
$1\frac{3}{5} \div 3\frac{1}{5} =$
$1\frac{1}{2} \div 3 =$
$3 \div 6\frac{3}{4} =$
$2\frac{1}{2} \div 6 =$
$\frac{2}{3} \div \frac{3}{4} =$
$1\frac{1}{2} \div 3 =$
$2 \div \frac{4}{5} =$
$\frac{5}{8} \div \frac{1}{2} =$
$\frac{4}{5} \div \frac{1}{10} =$
$\frac{1}{4} \div \frac{3}{8} =$

Remember what they say about "apples at the bottom of the barrel". Get to the top fast!

P.O. 7.06.02.02

NAME:_____ CLASS:_____ DATE:_____

Solve each problem. Write the answers in simplest form.

1. How many $\frac{1}{10}$ yard pieces of string can be cut from $\frac{4}{5}$ yard of string?

2. How many portions of pie can be served from 3 whole pies, if each portion was to be $\frac{1}{6}$ of a pie?

3. John can run a mile in $6\frac{1}{2}$ minutes. How many miles can he run in $12\frac{1}{2}$ minutes?

4. How many $2\frac{1}{2}$ pound packages of sugar can be filled from a $12\frac{1}{4}$ pound package?

5. How many quarts are there in $3\frac{1}{2}$ gallons? (Hint: 1 quart = $\frac{1}{4}$ gallon.)

P.O. 7.06.03.01

NAME: _____ CLASS: _____ DATE: _____

Match each problem in Column A with its correct ratio in Column B.

A		B
1. 15 to 3	_____	a. 4:1
2. 14 to 35	_____	b. 15:1
3. $\frac{30}{2}$	_____	c. 3:4
4. $\frac{10}{30}$	_____	d. 2:5
5. 10 oz. to 1 lb.	_____	e. 6:1
6. 1m to 25 cm	_____	f. 3:2
7. \$3 to 50¢	_____	g. 3:1
8. 3½ hrs. to 30 min.	_____	h. 7:1
9. 9 to 6	_____	i. 5:1
10. 18 to 2	_____	j. 2:9
11. 10 sec. to $\frac{3}{4}$ min.	_____	k. 1:3
12. $\frac{3}{8}$ to $\frac{1}{8}$	_____	l. 5:8

P.O. 7.06.03.02

NAME _____ CLASS: _____ DATE: _____

Match each of the following ratios in column I with an equivalent ratic in column II.

Column I		Column II
1. 5 to 6	_____	a. 10 to 15
2. 8:9	_____	b. 1:2
3. 1 to 7	_____	c. 56:63
4. $\frac{3}{8}$	_____	d. $\frac{4}{1}$
5. $\frac{2}{3}$	_____	e. 6 to 8
6. 15:75	_____	f. $\frac{3}{21}$
7. 13 to 26	_____	g. 20 to 24
8. 7 to 11	_____	h. $\frac{27}{72}$
9. 12:3	_____	i. 3:15
10. $\frac{3}{4}$	_____	j. 14:22

P.O. 7.06.03.03

NAME: _____ CLASS: _____ DATE: _____

Fill in each box to make a true proportion.

1. $\frac{8}{\square} = \frac{6}{12}$

2. $\frac{7}{1\square} = \frac{\square}{16}$

3. $\frac{7}{35} = \frac{1}{\square}$

4. $\frac{6}{36} = \frac{\square}{6}$

5. $\frac{\square}{15} = \frac{3}{5}$

6. $\frac{3}{4} = \frac{\square}{12}$

7. $\frac{\square}{10} = \frac{1}{2}$

8. $\frac{1\square}{20} = \frac{\square}{5}$

9. $\frac{9}{15} = \frac{\square}{5}$

10. $\frac{18}{27} = \frac{\square}{3}$

P.O. 7.06.03.04

NAME: _____ CLASS: _____ DATE: _____

Identify the means and extremes in the following proportions.

1. $\frac{2}{5} = \frac{5}{30}$

means 5, 5

extremes 2, 30

2. $\frac{1}{6} = \frac{5}{30}$

means ___, ___

extremes ___, ___

3. $\frac{3}{4} = \frac{12}{16}$

means ___, ___

extremes ___, ___

4. $\frac{1}{9} = \frac{3}{27}$

means ___, ___

extremes ___, ___

5. $3 : 4 = 6 : 8$

means ___, ___

extremes ___, ___

6. $4 : 5 = 8 : 10$

means ___, ___

extremes ___, ___

7. $6 : 7 = 18 : 21$

means ___, ___

extremes ___, ___

8. $11 : 12 = 33 : 36$

means ___, ___

extremes ___, ___

P.O. 7.06.03.05

NAME: _____ CLASS: _____ DATE: _____

A. Is the proportion true?

1. $\frac{3}{4} \stackrel{?}{=} \frac{24}{32}$

$3 \times 32 = 24 \times 4$

$96 = 96$

Yes

2. $\frac{3}{4} \stackrel{?}{=} \frac{7}{9}$

3. $\frac{3}{4} \stackrel{?}{=} \frac{8}{12}$

4. $\frac{6}{4} \stackrel{?}{=} \frac{3}{2}$

5. $\frac{8}{3} \stackrel{?}{=} \frac{24}{9}$

6. $\frac{5}{9} \stackrel{?}{=} \frac{30}{56}$

7. $\frac{5}{9} \stackrel{?}{=} \frac{30}{56}$

8. $\frac{33}{11} \stackrel{?}{=} \frac{9}{3}$

9. $\frac{2\frac{1}{4}}{8} \stackrel{?}{=} \frac{5}{16}$

10. $\frac{0.4}{0.5} \stackrel{?}{=} \frac{1.6}{2}$

B. Use the following set of numbers to form a true proportion.

(1) 5, 15, 30, 10

(2) 6, 8, 4, 12

(3) 1, 4, 10, 40

(4) 4, 22, 55, 10

75

P.O. 7.06.03.06

NAME: _____ CLASS: _____ DATE: _____

Solve each problem.

1. The scale on a map is 1 inch = 500 miles. If two cities are 1500 miles apart, how far apart are they on the map?

2. Maria works in the local supermarket after school. She makes a minimum wage of $3.35 per hour. At the end of the week she clocked 8 hours. What was her gross pay?

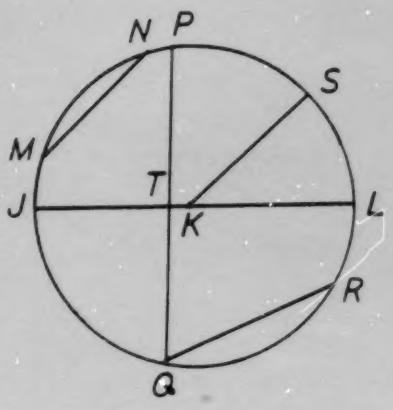
3. Robert traveled 11 miles on his bicycle in 2 hours. At the same rate, how long will it take him to travel 44 miles?

4. David scores an average of 7 foul shots out of every 10 attempts. At the same rate, how many shots would he score in 200 attempts?

5. The scale on a blueprint is 1 inch = 20 feet. The length of the room on the blueprint is 1½ inches, what is the actual length of the room?

P.O. 7.09.04.01

NAME: _____ CLASS: _____ DATE: _____



The figure at the left is a circle with its center at K.

a) Identify all chords in the circle.
b) Which is the longest chord?

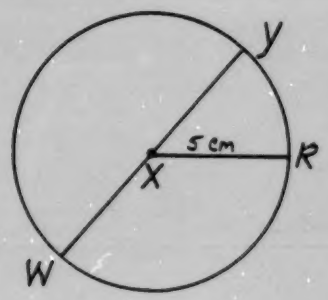
2. Draw the longest possible chord in the circle at the right which has its center at B. How many of these longest chords may be drawn?

3. Two chords are drawn in a circle. One passes through the center, and the other does not pass through the center. Which is the shorter? Why?

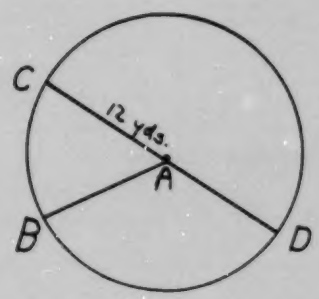
P.O.7.09.04.02

NAME:_____ CLASS:_____ DATE:_____

1. In the circle drawn at right with center at X, find the measure of $\overline{WY}$ if $\overline{XR}$ = 5cm



2. In the circle drawn at right with center at A, find the measure of $\overline{BA}$ if $\overline{CD}$ = 12 yards



3. What is the length of the diameter of a circle whose radius measures:

a) 4" b) 29' c) 5.8 yds. d) 3½ cm

4. What is the length of the radius of a circle whose diameter measures:

a) 18' b) 62" c) 9 m d) 12.4 yds.

P.O. 7.09.04.03-.06

NAME:_____ CLASS:_____ DATE:_____

Use $\pi \simeq 3.14$ to find the circumference of a circle whose diameter is:

1. 49 feet
2. 68.3 cm
3. 4½ yds.

Use $\pi \simeq 3.14$ to find the circumference of a circle whose radius is:

4. 5 miles
5. 17.2 inches

Use $\pi = \frac{22}{7}$ to find the circumference of a circle whose diameter is:

6. 35 feet
7. 200 inches

Use $\pi = \frac{22}{7}$ to find the circumference of a circle whose radius is:

8. 140 cm
9. 18.2 yds.

P.O. 7.09.04.07

NAME:_____ CLASS:_____ DATE:_____

Solve each problem.

1. The diameter of the wheels of Susan's 10 speed racer is 27". How many inches does Susan move in one turn of the wheels?

2. A circular man-made lake has a radius of 560 feet. How many feet of lake-front property can be located around the lake?

3. A belt is wrapped around a circular wheel in a machine. The wheel has a radius of 5.8 inches. How far will the belt move with one complete revolution of the wheel?

4. A circular plot of land which has a diameter of 350 meters is to be roped-off. How many feet of rope will be necessary?

30

P.O. 7.10.01.01

NAME:_____CLASS:_____DATE:_____

Select the appropriate unit to complete each sentence.
Choose from inch(es), feet, yard(s), mile(s).

1. The length of a baseball bat is 37 _____.

2. The length of a pencil is 7 _____.

3. An airplane can fly at an altitude of 6 _____.

4. My math book is 1 _____ thick.

5. The distance from Chicago to St. Louis is 276 _____.

6. The height of Mount Lafayette is 5249 _____.

7. The length of a picnic table is 2 _____.

8. I know a basketball player who is 6 _____ 9 _____ tall.

9. The diameter of a quarter is $\frac{11}{12}$ of an _____.

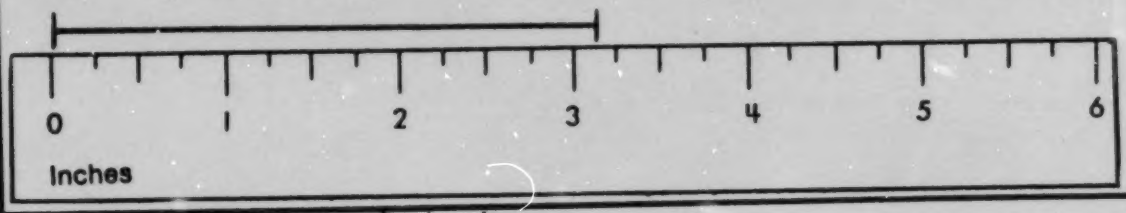
10. I am going to take part in the 100 _____ dash.

P.O. 7.10.01.02

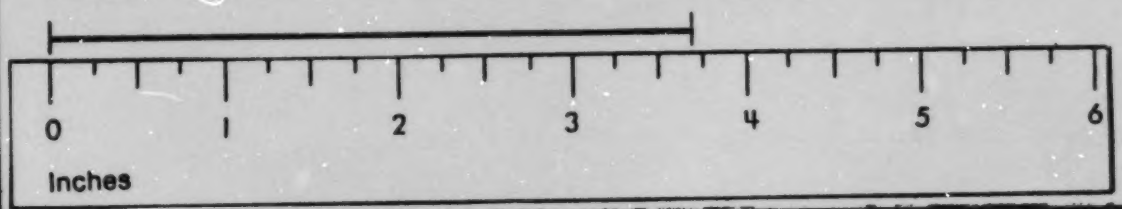
NAME: _____ CLASS: _____ DATE: _____

Determine the measures of the line segments.

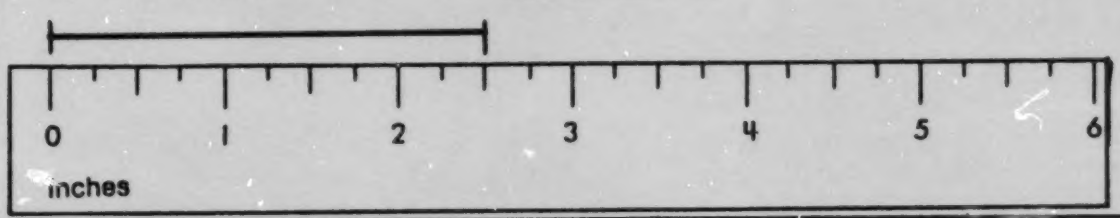
To the nearest inch _____



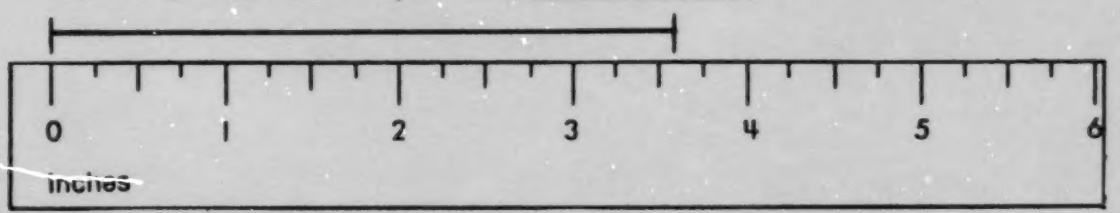
To the nearest $\frac{1}{2}$ inch _____



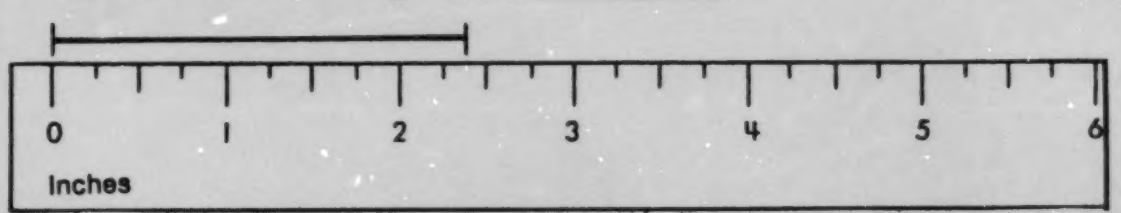
To the nearest $\frac{1}{2}$ inch _____



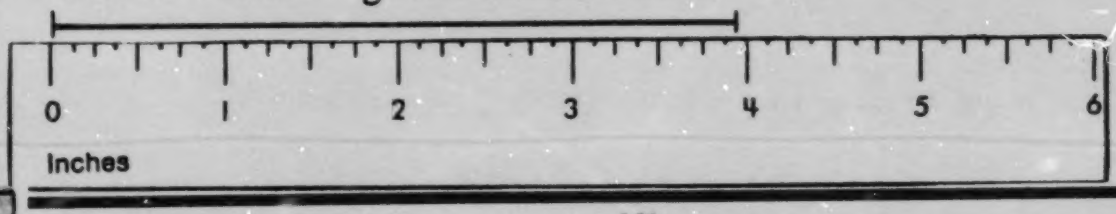
To the nearest $\frac{1}{4}$ inch _____



To the nearest $\frac{1}{4}$ inch _____



To the nearest $\frac{1}{8}$ inch _____



82

P.O. 7.10.01.03

NAME:_____ CLASS:_____ DATE:_____

Convert from one unit of length to the other.

1. 5 ft.= ☐ in.	2. 48 in.= ☐ ft.	3. 2 yd.= ☐ in.	4. 9 ft.= ☐ yd.
5. 15 yd.= ☐ ft.	6. 30 in.= ☐ ft.	7. 7 ft.= ☐ yd.	8. 7,040 ft.= ☐ mi.
9. 6 ft. 3 in.= ☐ in.	10. 4 yd. 2 ft. = ☐ ft.	11. 3 mi.= ☐ ft.	12. $\frac{2}{3}$ yd. = ☐ ft.
13. 3½ ft.= ☐ yd.	14. 24 in.= ☐ yd.	15. $1\frac{3}{4}$ ft.= ☐ in.	16. 1760 ft.= ☐ mi.

83

P.O. 7.10.01.04

NAME:_____ CLASS:_____ DATE:_____

Solve.

1. If 4 feet of lace will trim one dress, how many yards of lace are needed for 24 dresses?

2. The side of a square measures 14 inches. Express the perimeter to the nearest foot.

3. It takes $4\frac{1}{4}$ feet of trimming to trim one shelf. How many yards of trimming will be needed to trim 3 shelves?

4. A fence 15 yards long requires a post every 2 feet. How many posts will this fence need?

5. An ant fell to the bottom of a 10 foot deep hole. During the first hour the ant climbed up 7 inches and then slid back 4 inches. At that rate, how many hours did it take the ant to climb out of the hole? (***Be careful!!!)

84

P.O. 7.10.02.01

NAME: _____ CLASS: _____ DATE: _____

Compute each sum.

Example:

3 ft. 6 in.
+ 4 ft. 8 in.

7 ft. ~~14~~ in.
1 ft. 2 in. = 8 ft. 2 in

1.
4 hrs. 25 min.
+ 2 hrs. 40 min.

2.
4 ft. 7 in.
+ 2 ft. 6 in.

3.
3 wks. 4 days
+ 1 wk. 5 days

4.
3 lb. 12 oz.
+ 2 lb. 7 oz.

5.
6 yd. 2 ft.
+ 2 yd. 2 ft.

6.
3 hrs. 46 min.
+ 2 hrs. 55 min.

7.
14 lb. 9 oz.
+ 5 lb. 11 oz.

P.O. 7.10.02.02

NAME: _____ CLASS: _____ DATE: _____

Compute each difference.

Example:

$$\begin{array}{r} \overset{4}{\cancel{5}}\text{ ft.} \quad \overset{15}{\cancel{3}}\text{ in.} \\ -\ 2\text{ ft.} \quad 4\text{ in.} \\ \hline 2\text{ ft.} \quad 11\text{ in.} \end{array}$$

1.

$$\begin{array}{r} 6\text{ wks.} \quad 4\text{ days} \\ -\ 3\text{ wks.} \quad 6\text{ days} \\ \hline \end{array}$$

2.

$$\begin{array}{r} 9\text{ hrs.} \quad 25\text{ min.} \\ -\ 3\text{ hrs.} \quad 50\text{ min.} \\ \hline \end{array}$$

3.

$$\begin{array}{r} 17\text{ lbs.} \quad 4\text{ oz.} \\ -\ 12\text{ lbs.} \quad 15\text{ oz.} \\ \hline \end{array}$$

4.

$$\begin{array}{r} 2\text{ yds.} \quad 1\text{ ft.} \\ -\ 1\text{ yd.} \quad 2\text{ ft.} \\ \hline \end{array}$$

5.

$$\begin{array}{r} 6\text{ qts.} \quad 1\text{ pt.} \\ -\ 4\text{ qts.} \quad 2\text{ pts.} \\ \hline \end{array}$$

6.

$$\begin{array}{r} 8\text{ ft.} \quad 6\text{ in.} \\ -\ 4\text{ ft.} \quad 10\text{ in.} \\ \hline \end{array}$$

7.

$$\begin{array}{r} 10\text{ gal.} \quad 2\text{ qts.} \\ -\ 5\text{ gal.} \quad 3\text{ qts.} \\ \hline \end{array}$$

P.O. 7.10.02.03

NAME: _____ CLASS: _____ DATE: _____

Compute the products.

Example:

6 ft. 4 in.
x5

30 ft. 20 in. =
1 ft. 8 in. =
31 ft. 8 in.

1. 6 qts. 1 pt.
x6

2. 2 wks. 5 days
x3

3. 2 ft. 9 in.
x3

4. 4 qts. 2 pts.
x5

5. 3 yds. 2 ft.
x6

6. 8 lbs. 10 oz.
x3

7. 5 gal. 3 qts.
x4

87

P.O. 7.10.02.04

NAME: _____ CLASS: _____ DATE: _____

Compute the quotients.

3) 7 ft. 6 in. =
6 ft. 18 in.

$$3\overline{)\,6\text{ ft. }18\text{ in.}} = \begin{array}{r}2\text{ ft. }6\text{ in.}\end{array}$$

1.
5) 11 yd. 2 ft.

2.
2) 5 wk. 3 days

3.
2) 7 yd. 1 ft.

4.
5) 11 ft. 8 in.

5.
3) 7 gal. 2 qts.

6.
2) 5 gal. 2 qt.

7.
6) 13 hrs. 12 min.

88

P.O. 7.10.02.05

NAME:_____ CLASS:_____ DATE:_____

Solve each problem.

Example:
John studies 1 hr. 15 min. each night. How much time does he spend studying in 5 days?

1 hr. 15 min.
x5
5 hr. 75 min. =
1 hr. 15 min.
6 hr. 15 min.

1. Mr. Smith needs 2 pieces of pipe to fix the leaky sink. One piece is 2 ft. 8 in. and the other is 3 ft. 7 in. How much pipe does he need altogether?

2. Jean is 4 ft. 9 in. tall. Her mother is 5 ft. 6 in. tall. How much taller is Joan than her mother?

3. Mary is making 2 cakes. Each cake needs 2 cups, 6 oz. of flour. How much flour will she need altogether?

4. If we have 5 qts 12 oz. of juice and want to give equal amounts to 4 lunch tables, how much will each table receive?

5. John is a stock boy in the food store. He works 3 hr. 30 min each day. How long will he work in 5 days?

6. The school wants to put tile edging on both sides of the corrider. Each side is 45 ft. 9 in. How much edging will be needed?

7. Jason is making a model plane. He has 1 ft. 9 in. of wood. He must make 7 equal strips of wood. How long will each strip be?

89

P.O. 7.10.03.01-.02

NAME:_____ CLASS:_____ DATE:_____

A) Complete each statement using kilometer (km), meter (m), centimeter (cm), or millimeter (mm).

1. The length of a baseball bat is 94 _____.
2. The length of a walking step might be 65 _____.
3. My science book is 3 _____ thick.
4. The diameter of a quarter is 23 _____.
5. The distance from New York to San Francisco is about 1863 _____.

B) Give the weights of the following. Use milligram (mg), gram (g) or kilogram (kg).

1. A sack of potatoes: 3 _____
2. A pen: 30 _____
3. A raisin: 780 _____
4. A new born baby: 3½ _____
5. A can of soup: 312 _____

C) Complete.

1. 32 cm = _____ mm
2. 400 cm = _____ m
3. 26 m = _____ cm
4. 8 km = _____ m
5. 56 m = _____ mm
6. 6000 g = _____ kg
7. 9 kg = _____ gm
8. 500 g = _____ kg
9. 1500 mg = _____ gm
10. .08 gm = _____ mg
11. 8 L = _____ mℓ
12. 400 mℓ = _____ ℓ
13. 16 L = _____ mℓ
14. 12,000 mℓ = _____ ℓ
15. 530 mℓ = _____ ℓ

90

P.O. 7.07.04.01

NAME: _____ CLASS: _____ DATE: _____

Find each product.
Put the decimal point in the correct place.

1. .7 x .6 = .42

2. .36 x .4

3. .56 x .9

4. .36 x 7

5. 463 x .09

6. .402 x .8

7. 3.62 x 3

8. 3.47 x 5

9. .024 x .2

10. 6.4 x 3

11. .056 x .3

12. 4.6 x 2.3

13. .46 x 2.3

14. .46 x .23

15. .046 x .23

16. .123 x 6

17. .0123 x .6

18. .0123 x .06

19. 34.5 x.012

20. 34.5 x .12

91

P.O. 7.07.04.02

NAME: _____ CLASS: _____ DATE: _____

Solve the following problems. Estimate your answer first.

1. A company sold 10,000 pencils at $.04 each. How much did it receive?

2. If, on the average, it costs a hotel $6.75 to feed a person for one day, how much will it cost to feed 100 people for a day?

3. What is the cost of 10.5 gallons of gasoline at $1.29 per gallon?

4. A steak costs $5.65/kg. How much will 0.8 kg. cost?

5. A wholesaler charges $.175 for a cupcake. What is the cost of 10 cupcakes?

82

P.O. 7.07.05.01

NAME:_____ CLASS:_____ DATE:_____

Compute the quotient by division or by the short-cut method.

1. $10 \overline{)\ 54}$	2. $10 \overline{)5.4}$	3. $.54 \div 10 =$	4. $\frac{5.4}{100} =$
5. $100 \overline{)\ 540}$	6. $540 \div 1000 =$	7. $\$5.40 \div 1000 =$	8. $\frac{.54}{100} =$
9. $1000 \overline{)\ 38.62}$	10. $100 \overline{)\ 246.8}$	11. $.068 \div 10 =$	12. $\frac{685}{10} =$
13. $.7 \div 1000 =$	14. $100 \overline{)\ 1}$	15. $603 \div 100 =$	16. $100 \overline{)\ 305.2}$

P.O. 7.07.05.02

NAME: _____ CLASS: _____ DATE: _____

Round each quotient to the nearest whole number, nearest tenth and nearest hundredth.

		Nearest Whole	Nearest Tenth	Nearest Hundredth
(1.)	78.6 ÷ 23 =	3	3.4	3.42
(2.)	21.75 ÷ 9 =			
(3.)	4.4 ÷ .06 =			
(4.)	.8 ÷ 5.8 =			
(5.)	268 ÷ .16 =			
(6.)	5.273 ÷ .286 =			
(7.)	1.35 ÷ 1.06 =			
(8.)	4.82 ÷ .68 =			
(9.)	75 ÷ .36 =			
(10.)	709.64 ÷ .215 =			

P.O. 7.07.05.03

NAME:_____ CLASS:_____ DATE:_____

Solve each word problem.

1. Mr. Martin paid $4.32 for 2.5 lb. of hamburger meat. What is the cost of one pound of hamburger to the nearest cent?

2. A new pencil is 18.8 cm long. If Charlene uses 0.5 cm of the pencil by writing each day, how many days will the pencil last?

3. A group of students collected $9.99 for 20 pounds of candy. How much can they spend on one pound of candy to the nearest cent?

4. A car gets 28 miles to one gallon of gas. If it was driven 802 miles, how many gallons did it use?

5. What is the better buy, a 2 pound bag of potatoes for $.79 or a 5 pound bag of potatoes for $1.89?

95

P.O. 7.12.01.01

NAME: _____ CLASS: _____ DATE: _____

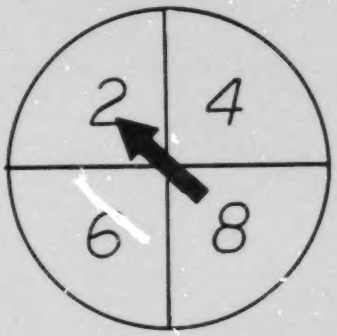
I. List all possible arrangements.
II. List all possible outcomes.

I

C A T

F O U R

II



Two Spins

One Spin

96

P.O. 7.12.01.02

NAME: _____ CLASS: _____ DATE: _____

I. Write in proper mathematical notation.

1) R = selecting a red marble from a box.
The probability of selecting a red marble from a box is 3 out of 7.

$P(R) = \frac{3}{7}$

2) B = selecting a blue marble from a box.
The probability of selecting a blue marble from a box is 1 out of 7.

_____

3) G = selecting a green marble from a box.
The probability of selecting a green marble out of a box is 2 out of 7.

_____

II. Write in a sentence.

4) $P(A) = \frac{2}{5}$ The probability of event A is $\frac{2}{5}$

5) $P(C) = \frac{1}{7}$ _____

6) $P(W) = 1$ _____

7) $P(R) = 0$ _____

97

P.O. 7.12.01.03

NAME: _____ CLASS: _____ DATE: _____

Slips of paper with the following numbers are put into a box:

10	10	10	9	9	8	8	8	8	7	6	5	5	4

If one slip of paper is drawn, what is the probability that it will be:

(1) P(10) = $\frac{3}{14}$

(2) P(9) =

(3) P(8) =

(4) P(7) =

(5) P(6) =

(6) P(5) =

(7) P(4) =

(8) P(3) =

(9) P(even number) =

(10) P(odd number) =

(11) P(a number $<$ 9) =

(12) P(a number) =

(13) P(a number $>$ 9) =

(14) P(11) =

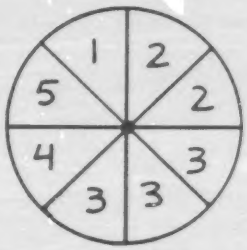
(15) P(a number $<$ 5) =

98

P.O. 7.12.02.01

NAME: _____ CLASS: _____ DATE: _____

Find the probability values for 1 spin of the spinner.
Add the sum of the probabilities to check your answer.



1. P (1) = _____

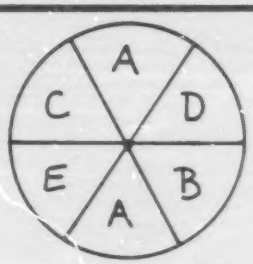
2. P (2) = _____

3. P (3) = _____

4. P (4) = _____

5. P (5) = _____

6. P (1) + P (2) + P (3) + P (4) + P (5) = _____



7. P (A) = _____

8. P (B) = _____

9. P (C) = _____

10. P (D) = _____

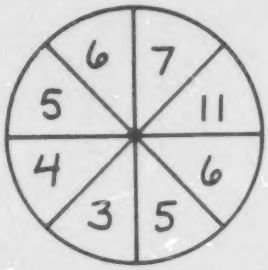
11. P (E) = _____

12. P (A) + P (B) + P (C) + P (D) + P (E) = _____

P.O. 7.12.02.02

NAME: _____ CLASS: _____ DATE: _____

I. Write True or False (assume 1 spin).



1. The likelihood that 3 will come up on the spinner is equal to the likelihood that 4 will come up. TRUE

2. The likelihood that 5 will come up on the spinner is equal to the likelihood that 7 will come up. _____

3. The likelihood that an odd number will come up on the spinner is equal to the likelihood that an even number will come up. _____

4. The likelihood that 5 will come up on the spinner is unequal to the likelihood that 6 will come up on the spinner. _____

5. The likelihood that 11 will come up on the spinner is unequal to the likelihood that 5 will come up. _____

6. The likelihood that numbers greater than 6 will come up on the spinner is equal to the likelihood that numbers less than 5 will come up. _____

7. The likelihood that 4 will come up on the spinner is unequal to the likelihood that 11 will come up. _____

II. List the probability values for 1 spin.
List the equally likely events.

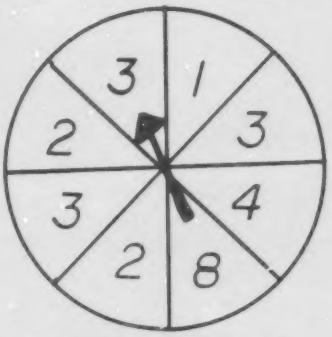
Equally likely events

8. P(1) =
9. P(2) =
10. P(3) =
11. P(4) =
12. P(5) =
13. P(6) =

P.O. 7.12.02.03

NAME: _____ CLASS: _____ DATE: _____

Find the probability value for one spin.



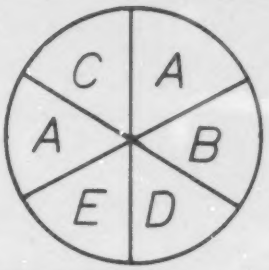
1. P(1) = P (not 1) =

2. P(2) = P (not 2) =

3. P(3) = P (not 3) =

4. P(4) = P (not 4) =

5. P(8) = P (not 8) =



6. P(A) = P (not A) =

7. P(B) = P (not B) =

8. P(C) = P (not C) =

9. P(D) = P (not D) =

10. P(E) = P (not E) =

101

P.O. 7.11.03.01

NAME:_____ CLASS:_____ DATE:_____

I. Circle the variable in each of the following open sentences.

1. He is wearing brown slacks.

2. $n + 5 = 12$

3. $5a + 6 = 16$

4. $X = 8$

5. $\frac{1}{2}$ of $\square = 6$

II. Using the letter Y as a variable, write the following phrases.

1. Eight times a week.

2. A number plus thirty.

3. A number increased by twelve.

4. A number divided by 6.

5. A number diminished by eight.

102

P.O. 7.11.03.02

NAME: _____ CLASS: _____ DATE: _____

I. Evaluate each expression when X = 10.

I.

1. x - 7 =
2. 5x =
3. x - 3 =
4. x - 125 =
5. x ÷ 2 =
6. x + 10 =
7. 25 - x =
8. 59 - x =
9. 35 . x =
10. x + 43 =

II. Evaluate 35 - m for the given value of m.

11. m = 6
12. m = 19
13. m = 27
14. m = 15
15. m = 9

III. Evaluate 5 x a for the given value of a.

16. a = 17
17. a = 49
18. a = 12
19. a = 25
20. a = 135

P.O. 7.11.04.01-.02

NAME:_____CLASS:_____DATE:_____

Write y = ax or y=ax+b under each equation.

Example: a = 4s

y = ax

1. m = 4s + x

2. 2y +r = g

3. 2 x radio price = total

4. m = x + 2r

5. n = 3c

6. b = 2c +r

7. cost = 4x shirt price + tax

P.O. 7.07.06.01

NAME:_____ CLASS:_____ DATE:_____

Convert the following fractions to terminating or non-terminating decimal fractions.

1. $\frac{2}{5}$ =

2. $\frac{9}{20}$ =

3. $\frac{3}{25}$ =

4. $\frac{5}{4}$ =

5. $\frac{5}{6}$ =

6. $\frac{7}{9}$ =

7. $\frac{5}{6}$ =

8. $\frac{5}{12}$ =

P.O. 7.07.06.02

NAME:_____ CLASS:_____ DATE:_____

Convert the following decimal fractions to fractions.

1. .25 =

2. .075 =

3. .250 =

4. .016 =

5. $0.272\overline{727}$ =

6. $0.55\overline{5}$ =

7. $.818\overline{181}$ =

8. $.4166\overline{6}$ =

P.O. 7.06.04.01

NAME: _____ CLASS: _____ DATE: _____

Write each fraction as a percent.

1 $\frac{1}{2}$ =	2 $\frac{1}{5}$ =	3 $\frac{7}{10}$ =	4 $\frac{3}{20}$ =
5 $\frac{9}{25}$ =	6 $\frac{17}{25}$ =	7 $\frac{4}{5}$ =	8 $\frac{1}{50}$ =
9 $\frac{7}{50}$ =	10 $\frac{50}{50}$ =	11 $\frac{1}{50}$ =	12 $\frac{27}{20}$ =
13 $\frac{19}{20}$ =	14 $\frac{13}{10}$ =	15 $\frac{1}{10}$ =	16 $\frac{19}{25}$ =

107

P.O. 7.06.04.02

NAME: _____ CLASS: _____ DATE: _____

Convert these mixed numbers to percents.

1 $8\ \frac{1}{4} =$	2 $4\ \frac{2}{5} =$	3 $6\ \frac{3}{4} =$	4 $9\ \frac{8}{10} =$
5 $4\ \frac{7}{8} =$	6 $10\ \frac{1}{2} =$	7 $11\ \frac{2}{3} =$	8 $18\ \frac{4}{5} =$
9 $8\ \frac{3}{4} =$	10 $2\ \frac{3}{5} =$	11 $14\ \frac{2}{12} =$	12 $3\ \frac{3}{10} =$
13 14	14 $7\ \frac{7}{11} =$	15 $8\ \frac{3}{6} =$	16 $14\ \frac{2}{7} =$

P.O. 7.06.04.03

NAME: _____ CLASS: _____ DATE: _____

Write each percent as a decimal fraction.

1	2	3	4
13% = _____	17% = _____	29% = _____	21% = _____
5	6	7	8
50% = _____	49% = _____	87% = _____	53% = _____
9	10	11	12
87% = _____	89% = _____	99% = _____	114% = _____
13	14	15	16
151% = _____	117% = _____	225% = _____	379% = _____

P.O. 7.06.05.01

NAME: _____ CLASS: _____ DATE: _____

How much do you save?

Sale - 10% off

Price	Amount Saved
Example	
$12.50	$1.25
$63.00	
$153.00	
$9.50	
$25.50	

Discount - 25% off

Price	Amount Saved
$16.00	
$130.00	
$250.00	
$33.00	
$45.00	

Save - 30%

Price	Amount Saved
$42.50	
$17.50	
$29.00	
$125.00	
$2.00	

P.O. 7.06.05.02

NAME:_____ CLASS:_____ DATE:_____

Find the total cost for each problem below.

Example

1. Mr. Wilson bought a camera for $56.00. The sales tax is 7%. What is the total price of the camera?

56.00	56.00
.07	3.92 tax
3.9200 tax	$59.92 total cost

2. A jacket costs $39.00 the sales tax is 6%. What is the total cost of the jacket?

3. Miss Jones wanted a picture that costs $65.50. The sales tax is 8%. Miss Jones has $70.00. Does she have enough money to purchase the picture?

Item Price	Tax	Total Price
A radio costs $101.50	8%	
A coat costs $72.00	6%	
A sweater costs $31.20	5%	
A record costs $6.00	7%	
A vase costs $15.50	6%	

111

P.O. 7.06.05.03

NAME:_____CLASS:_____DATE:_____

Find the interest.

Principal	Rate	Time	Interest
$200	6%	1 yr.	200 x .06 x 1 = $12.00
$1,250	6%	1 yr.	
$175	7%	6 mos.	
$3,000	9%	2 yrs.	
$5,400	8%	1 yr.	
$10,000	9%	3 yrs.	

112

P.O. 7.12.03.01

NAME: _____ CLASS: _____ DATE: _____

Construct a multiple bar graph from the table. Make up questions from the graph.

First-quarter nuptials down across the U.S.A.

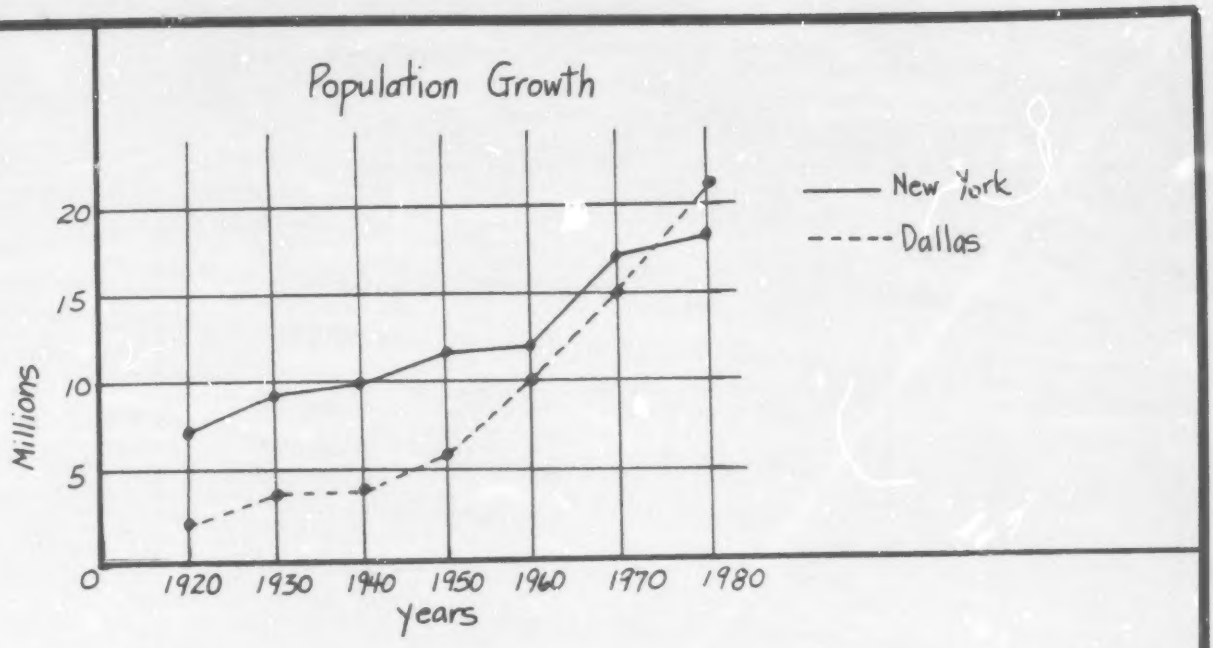
(January-March)

STATE	1981	1983
Ala.	10,895	10,388
Alaska	1,219	1,706
Ariz.	7,302	7,052
Ark.	4,661	5,927
Calif.	39,742	42,972
Colo.	7,058	6,937
Conn.	3,523	3,200
Del.	750	886
Dec.	940	887
Fla.	25,642	27,073

P.O. 7.12.03.02

NAME:_____ CLASS:_____ DATE:_____

Answer the questions under the graph.



1. The population growth of which two states are shown?

2. What was the approximate population of Dallas in 1960?

3. What was the approximate population of N.Y. in 1930?

4. How much greater was the population of N.Y. than Dallas in 1960?

5. What are the chances that the population will keep increasing in N.Y.? in Dallas ?

6. Which city is increasing in population more quickly?

114

P.O. 7.12.03.03

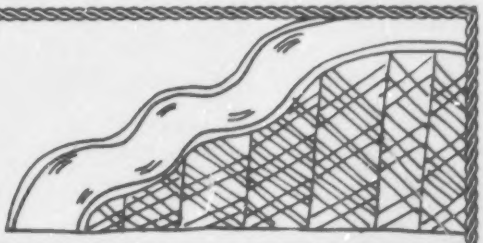
NAME: _____ CLASS: _____ DATE: _____

Construct a circle graph from the table of information below.

Most Popular Rides In Amusement Parks!

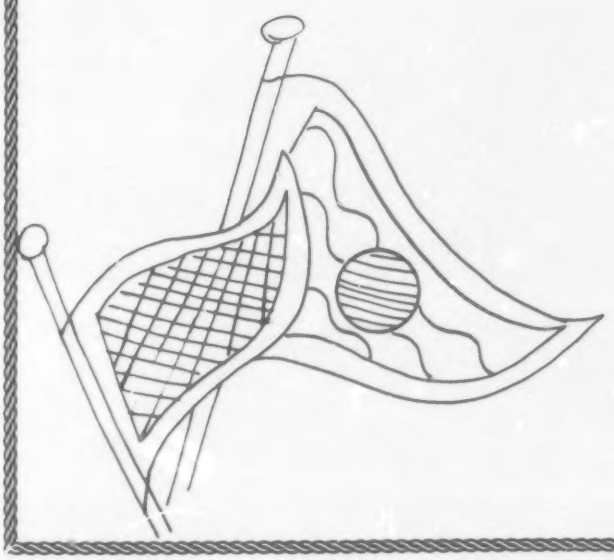
Astroland
Coney Island

Great Adventure
New Jersey



Rides	Number of People	Fractions and Percents
Roller Coaster	40	$\frac{40}{100} = \square\ \%$
Free Fall	30	
Giant Ferris Wheel	10	
Parachute Jump	20	

100 people surveyed



115

P.O. 7.13.03.01 - .02

NAME: _____ CLASS: _____ DATE: _____

Solve each problem.

Example -

Name 2 whole numbers, which when added equal 118 and when the smaller is subtracted from the larger the difference is 36.

100 + 18 = 118	90 + 28 = 118	82 + 36 = 118
100 - 18 = 82	90 - 28 = 62	82 - 36 = 46

77 + 41 = 118
77 - 41 = 36

77 and 41

1. Two whole numbers when added are 45. When multiplied they equal 486. What are the numbers?

_____ and _____

2. Sam has a collection of nickels and quarters. There are 2 more nickels than quarters. How many nickels and quarters are there if Sam has $3.40?

_____ quarters and _____ nickels

3. Mike has blue and red marbles. If you multiply the number of red and blue you get 195, if you add the numbers you get 28. How many red and blue marbles does he have?

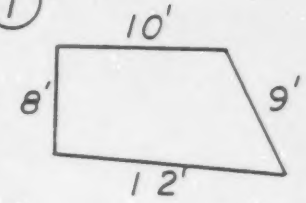
_____ red and _____ blue

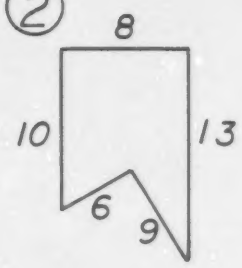
116

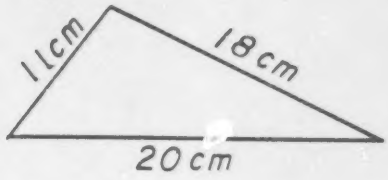
P.O. 7.10.04.01

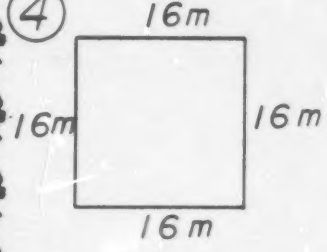
NAME:_____ CLASS:_____ DATE:_____

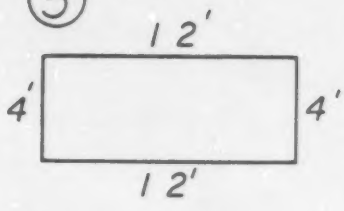
Find the perimeter of each of the figures below.

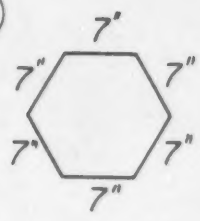
① 

② 

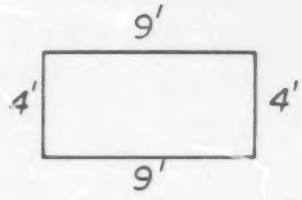
③ 

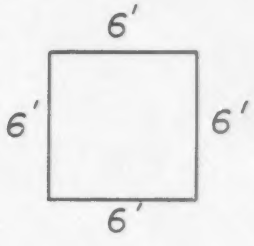
④ 

⑤ 

⑥ 

Which of these figures has the greater perimeter?

⑦ 



*⑧

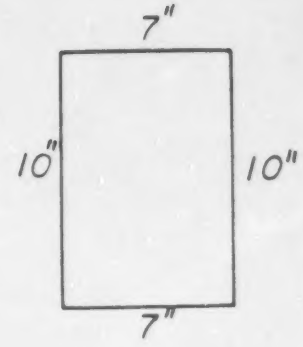
If the length and width of a rectangle is doubled, is the perimeter doubled?

117

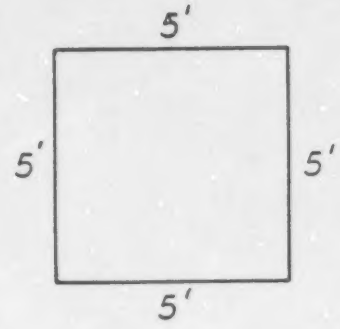
P.O. 7.10.04.02

NAME: _____ CLASS: _____ DATE: _____

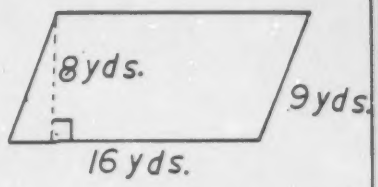
Find the area of each figure.

① 

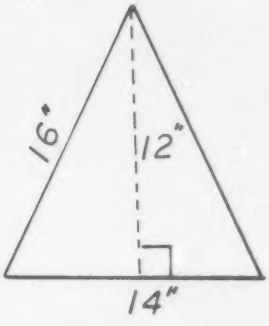
A = _____

② 

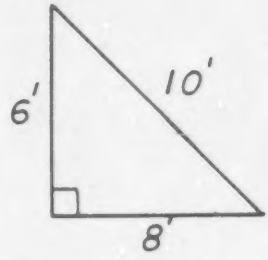
A = _____

③ 

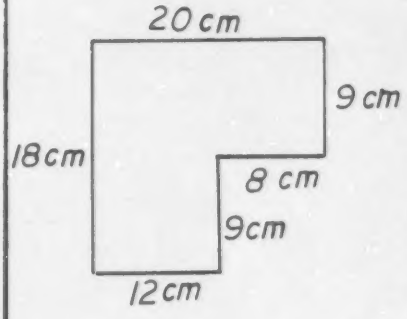
A = _____

④ 

A = _____

⑤ 

A = _____

* ⑥ 

A = _____

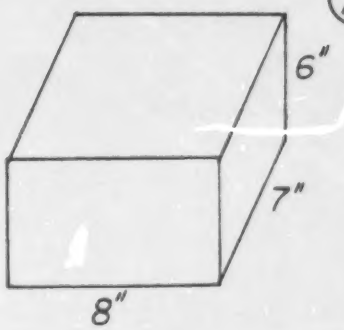
* ⑦ If the length and width of a rectangle are doubled, is the area doubled?

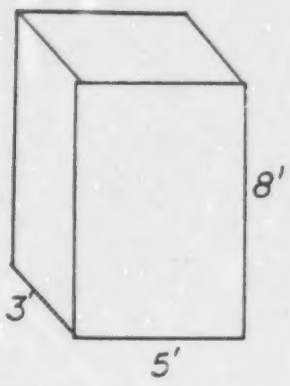
118

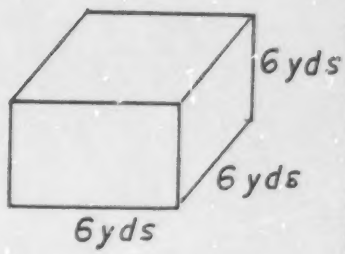
P.O. 7.10.04.03

NAME: _____ CLASS: _____ DATE: _____

Find the volume of each figure.

① 

② 

③ 

④ Find the volume of a cube whose edge is 4cm

*⑤ If the dimensions of a rectangular solid are doubled, is the volume doubled?

P.O. 7.10.04.04

NAME:_____CLASS:_____DATE:_____

Solve each problem.

1. The Pentagon building in Washington, D.C. measures 921 feet on each side. What distance would you cover if you walked around the outside?

2. How many feet of fencing would be required to enclose a rectangular lot measuring 90' by 120'?

3. A farmer has enough fertilizer to fertilize 10,000 square feet of field. Is this enough to fertilize a field measuring 85' by 105'?

4. An oil tank which is shaped as a rectangular prism measures 10' by 8' by 3'. The tank is to be filled with oil that sells for $4.50 per cubic foot. What will the cost of filling the tank be?

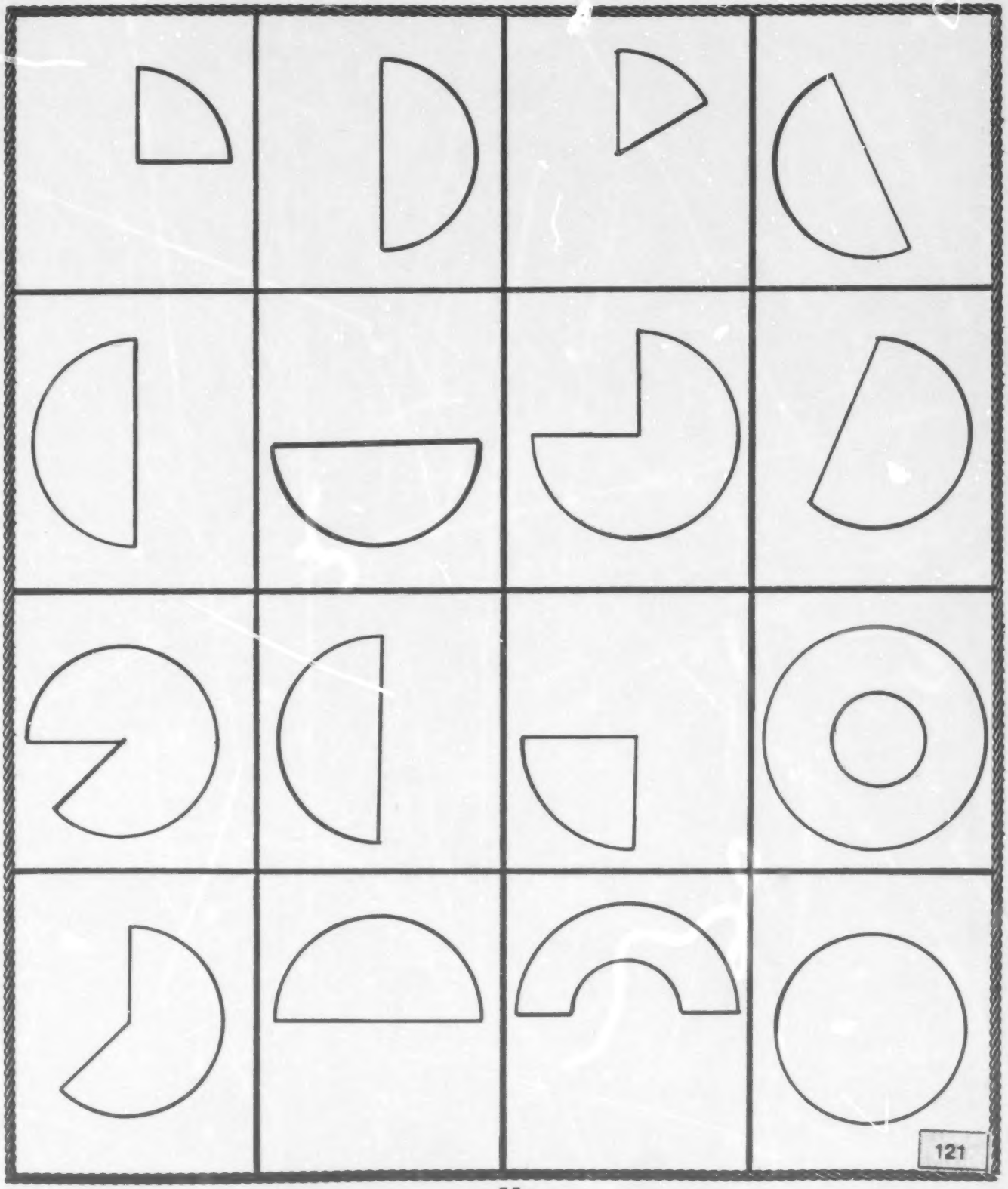
5. A cubic area is to be air conditioned. If each edge of the cube measures 15 yards, how many yards of air conditioning capacity should the air conditioner have?

120

P.O. 7.10.05.01

NAME: _____ CLASS: _____ DATE: _____

Darken in the semi-circles.



P.O. 7.10.05.02

NAME:_____CLASS:_____DATE:_____

Given the radius of each circle find the circumference of its semi^2 circle.

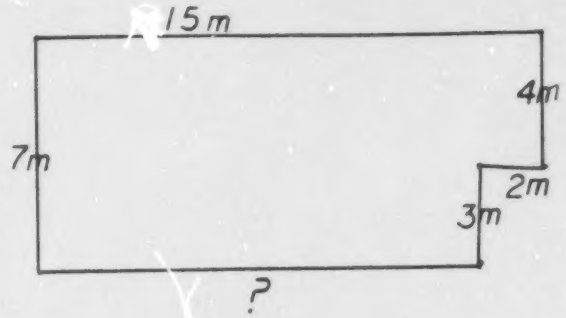
	Radius	Work Space	Circumference of the semi-circle
Example	12 meters	$C = \frac{\pi 2r}{2}$ $C = 25.\frac{12}{2}$ $C = 12.56$	12.56m
	12 inches		
	100 cm		
	24 feet		
	32 miles		
	116 yards		
	82 inches		

P.O. 7.10.05.03

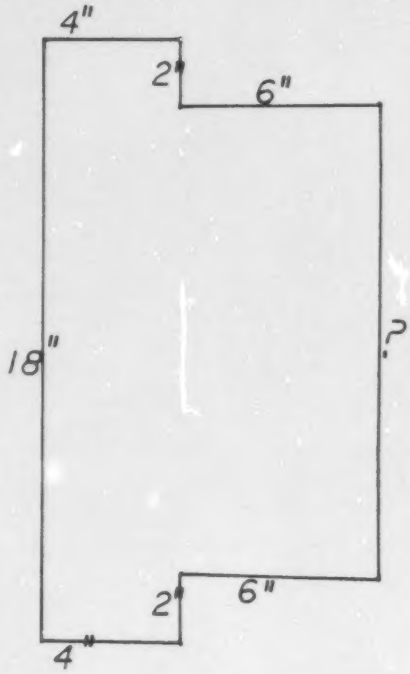
NAME: _____ CLASS: _____ DATE: _____

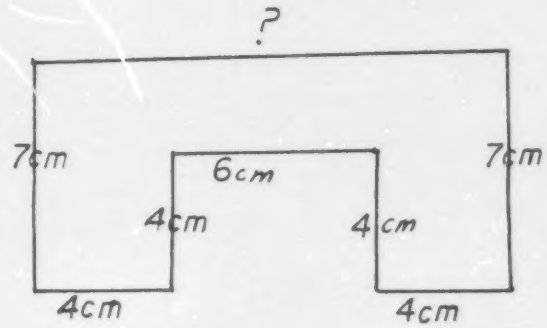
Find the missing side.

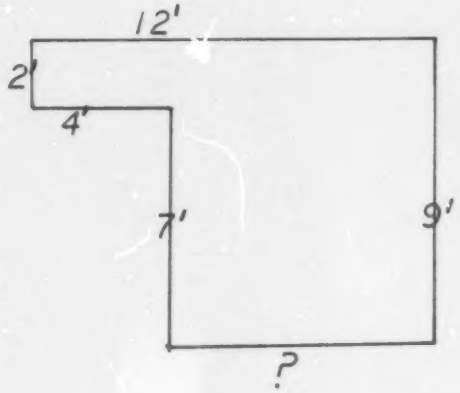
Example:



15 m - 2m = 13 m





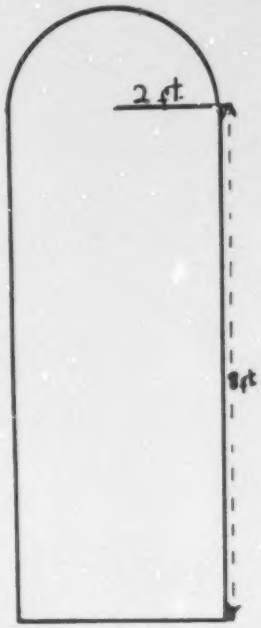


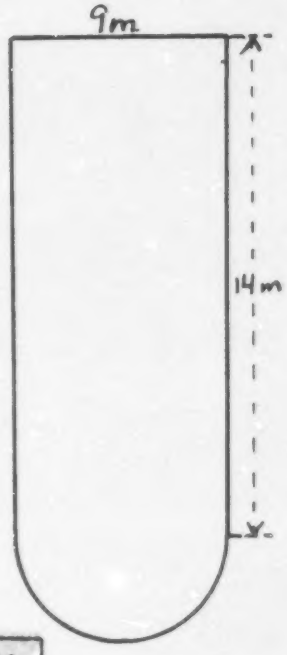
123

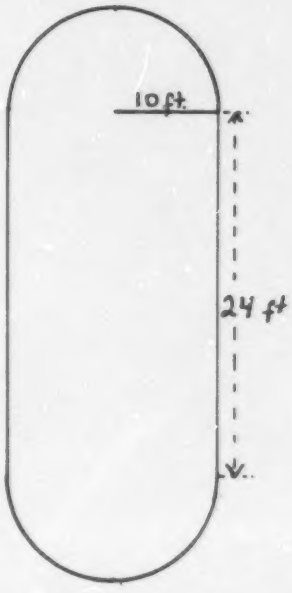
P.O. 7.10.05.04

NAME: _____ CLASS: _____ DATE: _____

Find the perimeter of each of the geometric shapes.



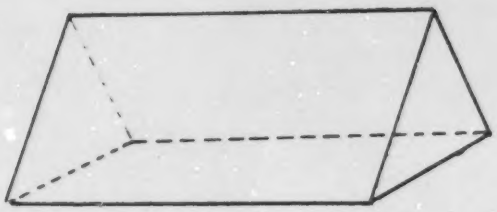




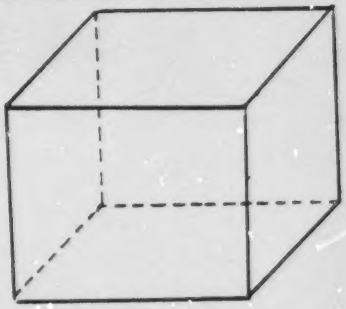
124

P.O. 7.09.05.02

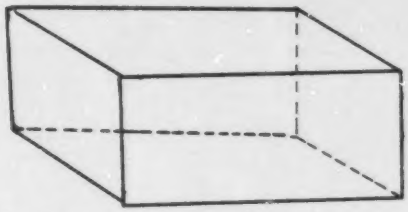
NAME:_____ CLASS:_____ DATE:_____



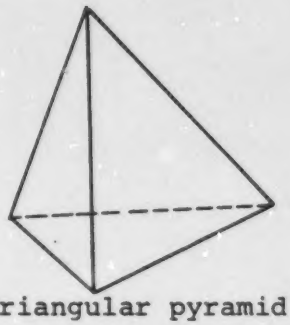
Triangle prism



Cube



Rectangular prism



Triangular pyramid

Count the faces, vertices, and edges for each shape and complete the table.

Polyhedron	Faces	Vertices	Edges
Triangular prism			
Cube			
Rectangular prism			
Triangular pyramid			

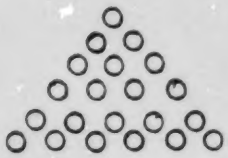
P.O. 7.01.04.01-02

NAME: _____ CLASS: _____ DATE: _____

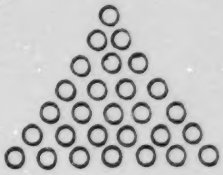
I. Count the number of circles in each triangular pattern.
II. See directions on sheet.

I.

_____



_____



_____

_____

II. We can express a triangular number as the sum of consecutive numbers, e.g. 1+2+3=6. Express each number below as the sum of consecutive counting numbers.

1. 28

2. 21

3. 45

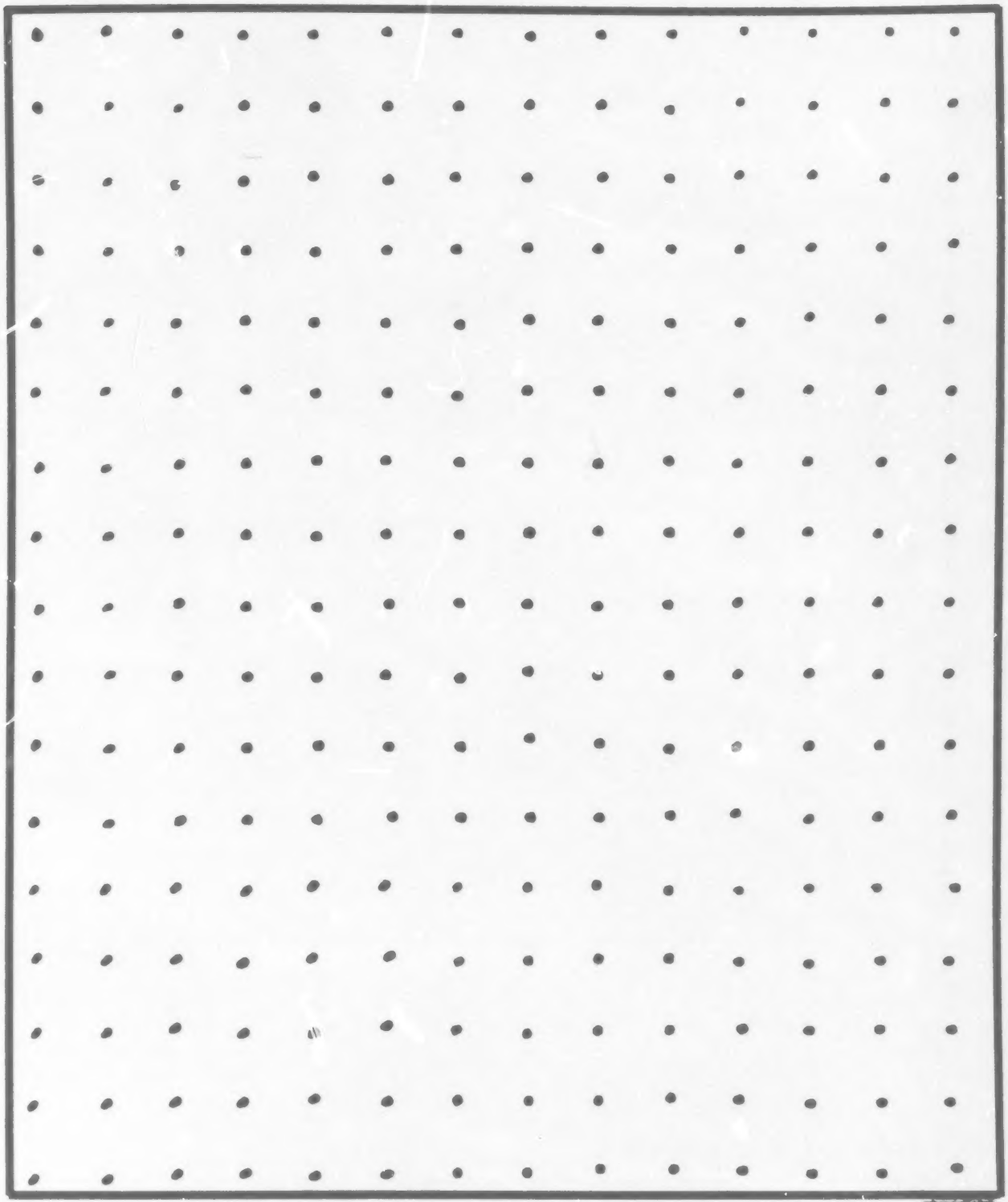
4. 36

126

P.O. 7.01.04.03-04

NAME: _____ CLASS: _____ DATE: _____

Connect the dots to form squares of different sizes.
Write the number of dots inside of each square.



P.O. 7.01.05.01-.03

NAME: _____ CLASS: _____ DATE: _____

I. Fill in each ☐.
II. Fill in each blank.

I.

Pascal's Triangle

Row Number		Row Sum
0	☐	_____
1	☐ ☐	_____
2	☐ ☐ ☐	_____
3	☐ ☐ ☐ ☐	_____
4	☐ ☐ ☐ ☐ ☐	_____
5	☐ ☐ ☐ ☐ ☐ ☐	_____
6	☐ ☐ ☐ ☐ ☐ ☐ ☐	_____
7	☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐	_____

II.

1. The sum of row 8 would be 2 or _____.

2. The sum of row 15 would be 2 or _____.

3. Complete these rows of Pascal's Triangle.

Row Number									
8	1	8	28	56	70	__	__	__	__
9	1	9	36	84	126	126	__	__	__	__
10	1	10	45	120	252	__	__	__	__

128

P.O. 7.01.06.01-02

NAME:_____ CLASS:_____ DATE:_____

Fill in each blank.

I. Complete the Fibonacci series.

1, 1, ——, ——, 5, ——, 13, 21, ——, ——

II. What is the fifteenth number in the Fibonacci series?

_____

III. Draw a picture using only Fibonacci numbers (5 balloons, 13 apples)

129

P.O. 7.14.03.01

NAME:_____ CLASS:_____ DATE:_____

Use tree diagrams to solve the following problems.

1) How many 2-letter words can be formed using one of the vowels i or a, followed by one of the consonants n, t or s? Write all the words.

2) Menu A: soda, milk cocoa

Menu B: Muffin, pie

How many pairs of snacks can be formed by choosing one item from each menu. List all pairs.

3)

9AM - 10:30AM	10:30 - 12:00
Ceramics	Swimming
Arts & Crafts	Hiking
Weaving	Basketball
	Yoga
	Folk Dancing

To your left is the morning activity chart at camp Minniematha. Name all the possible activities available. How many pairs can be formed?

130

P.O. 7.14.03.02

NAME: _____ CLASS: _____ DATE: _____

A penny and a dime are tossed. Use the letters H and T for heads and tails.

1. List all the outcomes.

2. What is P (T,T)?

3. What is P (H,H)?

4. What is the probability that one coin will come up heads and the other tails?

P.O. 7.14.04.01-02

NAME: _____ CLASS: _____ DATE: _____

Show each permutation.

1. Six students sit in a row of six seats. In how many ways can these students be arranged in the six seats? (Use the Basic Counting Principle.)

2. How many ways can you arrange the letters in the word shape?

3. In a lottery, you must choose a four-digit number and match the winning number. If you can only use the digits 1,2,3,4, how many possible combinations are there?

P.O. 7.12.04.01

NAME: _____ CLASS: _____ DATE: _____

Make a frequency table for each set of data.

Example:

1. Ages of 2nd grade students:

6, 8, 7, 6, 6, 6½ 7, 7,

6, 6, 6½, 7, 7, 6, 6½

Age	Tally	Number
6	//// /	6
6½	///	3
7	////	5
8	/	1

2. Math test scores:

85, 80, 75, 85, 90, 100, 75, 75

75, 80 80, 85, 85, 60, 70, 75

3. Cars sold in one week;

22, 24, 22, 19, 31, 24, 22

4. Shoe size of basketball players:

10, 10½, 12, 12½, 11, 11, 11½

12, 12½, 13, 11, 12½, 13, 12½

133

P.O. 7.12.04.01

NAME:_____CLASS:_____DATE:_____

Organize the data into frequency tables and find the mode.

Example:

48, 49, 52, 55, 70, 64, 52, 56, 63, 52, 56, 63

Data	Tally	Number	
48	/	1	
49	/	1	
52	///	3	Mode 52
55	/	1	
56	//	2	
63	//	2	
64	/	1	
70	/	1	

1. 36, 31, 33, 36, 28, 31, 29, 31, 36, 32, 35, 36

2. 12, 16, 15, 17, 14, 16, 16

3. 11, 15, 10, 19, 10, 15, 11, 12, 11, 19, 14, 11, 15, 12, 11

4. 123, 125, 125, 123, 124, 128 123, 122, 123, 129, 123, 121, 122, 124

5. $7.22, $7.24, $7.22, $7.23, $7.22, $7.23, $7.24, $7.20, $7.24

P.O. 7.12.04. 02

NAME: _____ CLASS: _____ DATE: _____

What is the change in each set of statistics?

Example: On a pre-test in spelling 10 students get:

75, 80, 75, 90, 60, 60, 75, 80, 85, 75

On the re-test the same students received:

90, 100, 95, 95, 85, 90, 95, 100, 95, 90

What is the change in the mode, mean, median?

Pre-Test			Re-Test		
60	11	2	85	1	1
75	1111	4	90	111	3
80	11	2	95	1111	4
85	1	1	100	11	2
90	1	1			
Mean	75.5 .75 75		Mean	93.5 95 95	

1. A new member joined the track team, make 2 frequency tables one of the weights old team & one of the weights new team. What is the difference in the mean, mode, median.

Old team		New team	
120	110	120	150
130	120	130	120
135	130	125	130

2. A store is taking inventory in its stock-when it adds new items, how does that change the mean, mode, & median.

Old stock		New stock	
3.50	3.75	3.50	3.75
3.75	3.50	3.75	3.50
4.50	4.00	4.50	4.00
3.50	3.50	4.00	3.50
2.00	4.50	3.50	4.50

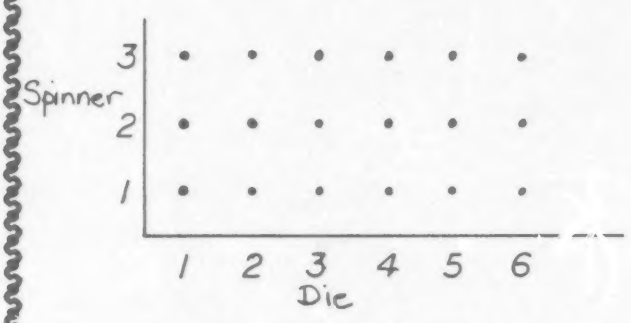
135

P.O. 7.12.05.01.-.02

NAME:_____ CLASS:_____ DATE:_____

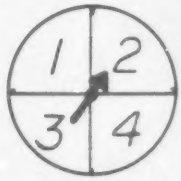
Use the sample space to determine the probability of each experiment.

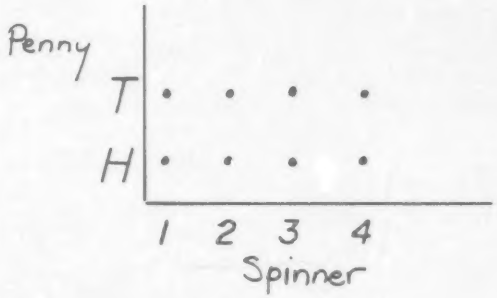
1.



P (2 on the spinner and 5 on the die) =

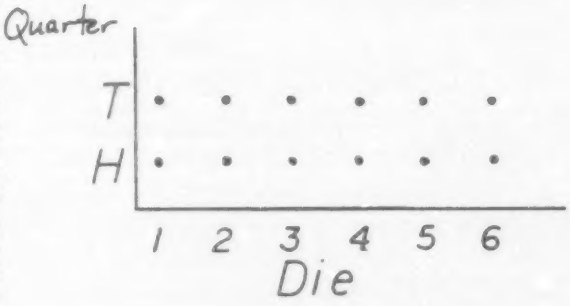
2.





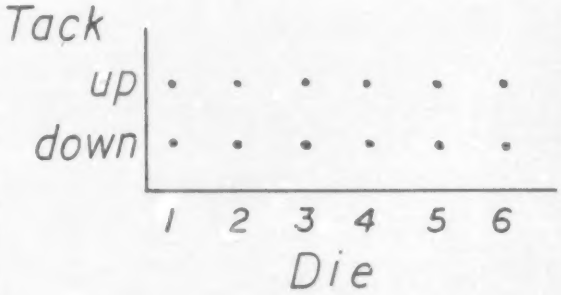
P (tail and a 3) =

3.



P (head or 4) =

4.



P(up or 2) =

136

P.O. 7.13.04.01-.02

NAME: _____ CLASS: _____ DATE: _____

For each of the following patterns, name the rule and find the next number.

1. 1, 2, 4, 8 _____

2. 2, 2, 3, 3, 4, 4, _____

3. 4, 14, 24, 34, _____

4. 7, 10, 13, 16, _____

5. 2, 5, 9, 14, 20, _____

6. 10, 11, 9, 10, 8, 9, _____

7. 12, 15, 18, 21, _____

8. 90, 88, 84, 78, 70, _____

9. 96, 48, 24, 12, 6, _____

10. 1, 4, 9, 16, 25 _____

P.O. 7.14.05.01

NAME: _____ CLASS: _____ DATE: _____

Write positive or negative next to each situation.

1. The temperature is 60° above zero. _____

2. You owe 10 dollars. _____

3. You deposit 100 dollars in your bank account. _____

4. You dive 3 meters below the surface of the water. _____

5. The football team gained twelve yards. _____

6. There are 5 new students in class. _____

7. You live on the 8th floor. _____

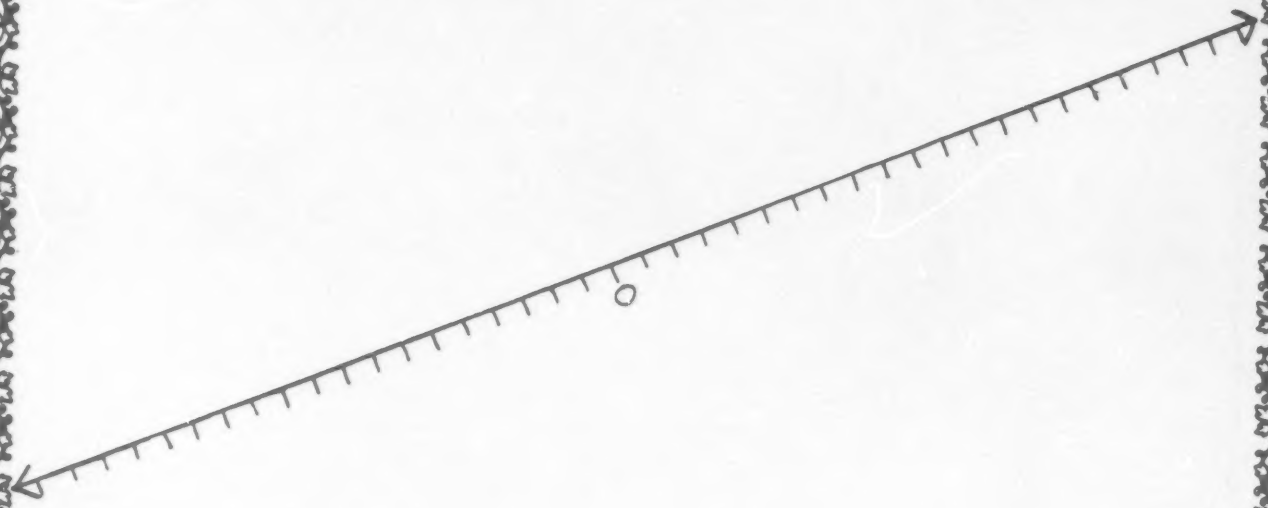
8. You lost 12 lbs. _____

138

P.O. 7.14.05.02

NAME:_____ CLASS:_____ DATE:_____

Locate and label each point on the number line.



1. $^{-}16$
2. $^{+}3$
3. $^{-}8$
4. $^{-}19$
5. $^{+}7$
6. $^{+}20$
7. $^{-}2$
8. $^{+}5$
9. 0
10. $^{+}12$

139

P.O. 7.14.05.03

NAME:_____ CLASS:_____ DATE:_____

I. Use < or > to make the following sentences true.
II. List in order from the smallest to the largest integer.

I. 1. 0 ☐ 4

2. 4 ☐ 2

3. -2 ☐ -4

4. -5 ☐ +5

5. -9 ☐ 0

6. -18 ☐ -23

7. +50 ☐ 22

8. -12 ☐ -18

9. 100 ☐ +100

10. -7 ☐ -2 ☐ 2

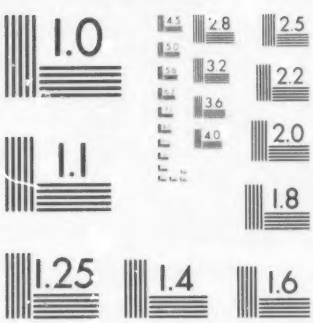
II. 1. 5, -3, -7, 0, 2, 1 _____

2. 12, 3, 0, -8. -11, 4 _____

3. 9, 7, 1, 12, -9 _____

4. 0, -3, 8, 4, -16, 11 _____

140



MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

P.O. 7.08.01.01

NAME: _____ CLASS: ___ ___ DATE: _____

Write the inverse of each problem and solve.

1. $^{+}18 - {}^{-}4 =$	2. $^{-}12 - {}^{+}7 =$
3. $^{+}2 - {}^{-}8 =$	4. $^{-}4 - {}^{+}11 =$
5. $^{-}8 - {}^{+}14 =$	6. $^{+}9 - {}^{-}14 =$
7. $^{+}19 - {}^{-}19 =$	8. $^{-}24 - {}^{+}24 =$

141

P.O. 7.08.01.02

NAME: _____ CLASS: _____ DATE: _____

Write each problem as a related additon problem and solve.
Find the message.

1. $^{+}7 - {}^{+}4 =$

$^{+}4 + \square = {}^{+}7$

$^{-}3$ D $^{+}3$ (T)

2. $^{-}10 - {}^{-}12 =$

$^{+}2$ T $^{-}2$ O

3. $^{-}14 - {}^{-}7 =$

$^{-}7$ K $^{+}7$ I

4. $^{-}9 - {}^{-}11 =$

$^{-}2$ T $^{+}2$ E

5. $^{-}7 - {}^{-}4 =$

$^{-}3$ F $^{+}3$ O

6. $^{-}11 - {}^{-}5 =$

$^{-}16$ V $^{-}6$ I

7. $^{-}4 - {}^{-}8 =$

$^{+}4$ V $^{-}12$ E

8. $^{-}7 - {}^{-}13 =$

$^{+}6$ E $^{-}20$ R =

I 2 3 4 5 6 7 8

142

P.O. 7.08.02.01.

NAME:_____ CLASS:_____ DATE:_____

Find the product of each example.

1) $^{+}3 \times {}^{+}7 =$ _____

2) $^{+}9 \times {}^{+}8 =$ _____

3) $^{+}13 \times {}^{+}8 =$ _____

4) $^{+}26 \times {}^{+}3 =$ _____

5) $^{+}37 \times {}^{+}12 =$ _____

6) $^{+}97 \times {}^{+}21 =$ _____

7) $^{+}10 \times {}^{+}12 =$ _____

8) $^{+}13 \times {}^{+}14 =$ _____

9) $^{+}7 \times {}^{+}14 =$ _____

10) $^{+}6 \times {}^{+}5 =$ _____

11) $^{+}4 \times {}^{+}9 =$ _____

12) $^{+}3 \times {}^{+}11 =$ _____

13) $^{+}2 \times {}^{+}9 =$ _____

14) $^{+}1 \times {}^{+}2 =$ _____

15) $^{+}5 \times {}^{+}16 =$ _____

16) $^{+}8 \times {}^{+}40 =$ _____

17) $^{+}53 \times {}^{+}21 =$ _____

18) $^{+}79 \times {}^{+}3 =$ _____

143

P.O. 7.08.02.02.-03

NAME: _____ CLASS: _____ DATE: _____

Find each product.

1.	$^{-}9 \times {}^{-}12 =$ _____	11.	$^{+}15 \times {}^{+}3 =$ _____
2.	$^{-}12 \times {}^{-}10 =$ _____	12.	$^{-}18 \times {}^{-}5 =$ _____
3.	$^{+}9 \times {}^{-}8 =$ _____	13.	$^{-}8 \times {}^{-}3 =$ _____
4.	$^{-}16 \times {}^{+}4 =$ _____	14.	$^{+}4 \times {}^{-}2 =$ _____
5.	$^{+}5 \times {}^{+}4 =$ _____	15.	$^{+}1 \times {}^{+}3 =$ _____
6.	$^{-}6 \times {}^{+}7 =$ _____	16.	$^{-}10 \times {}^{-}2 =$ _____
7.	$^{+}14 \times {}^{+}12 =$ _____	17.	$^{-}5 \times {}^{-}3 =$ _____
8.	$^{+}7 \times {}^{-}5 =$ _____	18.	$^{-}2 \times {}^{+}3 =$ _____
9.	$^{-}3 \times {}^{-}3 =$ _____	19.	$^{-}3 \times {}^{-}4 =$ _____
10.	$^{-}2 \times {}^{+}8 =$ _____	20.	$^{+}7 \times {}^{-}3 =$ _____

144

P.O. 7.08.03.01

NAME: _____ CLASS: _____ DATE: _____

Divide.

Example: THINK

$^{+}36 \div {}^{+}6 =$ [6] or [6] $\times {}^{+}6 = {}^{+}36$

This number is the product

of these factors

1. $\frac{^{+}16}{^{+}2} =$

2. $^{+}36 \div {}^{+}12 =$

3. $\frac{^{+}18}{^{+}6} =$

4. $^{+}6 \div {}^{+}6 =$

5. $^{+}80 \div {}^{+}8 =$

6. $\frac{^{+}64}{^{+}16} =$

7. $\frac{^{+}75}{^{+}3} =$

8. $+ 96 \div + 6 =$

145

P.O. 7.08.03 02-03

NAME: _____ CLASS: _____ DATE: _____

I. Write true or false.

II. Divide.

I. 1. $^{-}10 \div {}^{+}5 = {}^{+}2$ _____ 2. $^{-}21 \div {}^{+}7 = {}^{-}4$ _____

3. $^{+}25 \div {}^{-}5 = {}^{-}5$ _____ 4. $^{+}9 \div {}^{-}3 = {}^{-}3$ _____

5. $^{-}18 \div {}^{+}3 = {}^{+}6$ _____ 6. $^{-}42 \div {}^{+}7 = {}^{-}6$ _____

II. 7. $\frac{200}{-4} =$ 8. $^{+}4 \div {}^{-}4 =$

9. $\frac{-100}{{}^{+}25} =$ 10. $\frac{-55}{{}^{+}11} =$

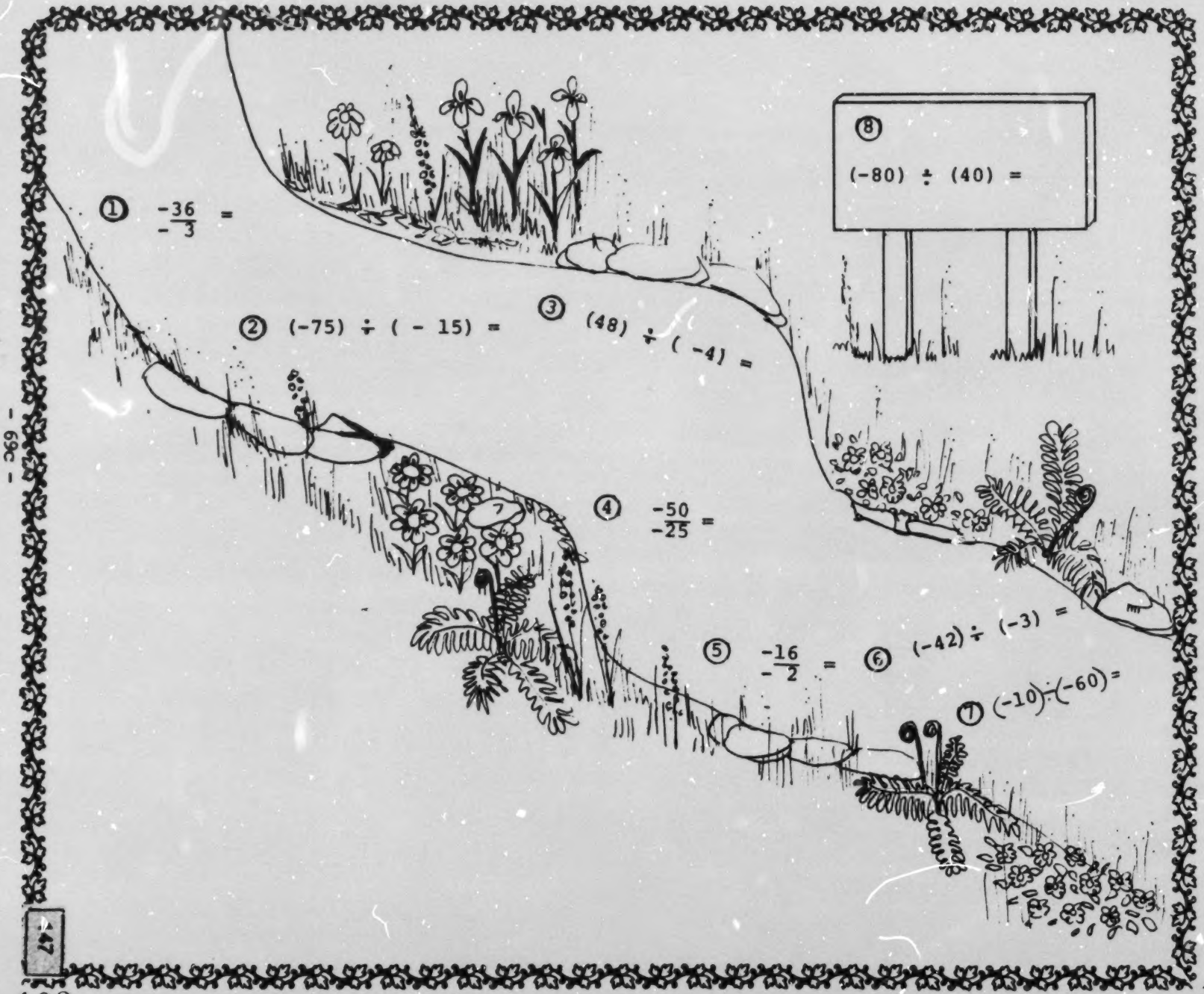
11. $^{-}24 \div {}^{+}6 =$ 12. $\frac{{}^{+}45}{-9} =$

148

F.O. 7.08.03.04

NAME: _____ CLASS: _____ DATE: _____

Divide.



P.O. 7.09.06.01-03

NAME: _____ CLASS: _____ DATE: _____

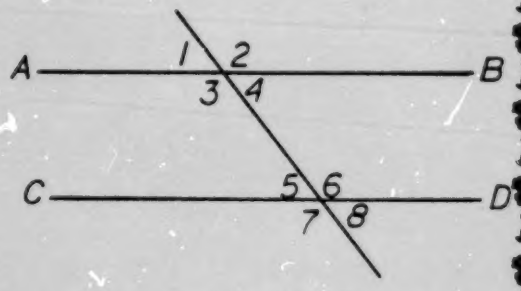
(1) Identify parallel lines.

(2) Identify transversals.

(3) Identify all vertical angles.

(4) Identify all alternate interior angles

(5) Identify all corresponding angles.



Refer to the above figure for the following examples:

(6) If m∠1 is 40°, what is m 4? _____

(7) If m ∠ 2 is 140°, what is m 3? _____

(8) Angles 3 and 4 are called _____ angles.

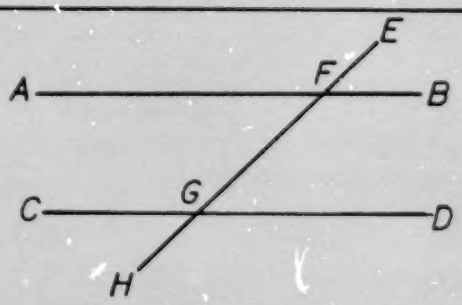
AB // CD
m∠FGD = 72°
Find the measure of these angles. Do not use a protractor.

(9) ∠ AFG

(10) ∠ EFB

(11) ∠ AFE

(12) ∠ BFG



148

P.O. 7.09.07.01

NAME: _____ CLASS: _____ DATE: _____

Complete the chart.

# sides of a polygon	# of triangles formed	Sum of the angles
a. 7		
b. 19		
c. 36		
*d.		900°

149

P.O. 7.09.07.02

NAME:_____ CLASS:_____ DATE:_____

1. In each of the following, find the measure of the fourth angle of a quarilateral when the other 3 angles measure

   a. 55°, 81°, and 103°

   b. 119°, 90°, and 90°

   c. 115°, 14°, and 152°

2. In each of the following, find the measure of the fifth angle of a pentagon when the other 4 angles measure

   a. 90°, 90°, 60°, 150°

   b. 83°, 165°, 75°, 175°

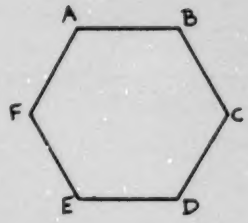
   c. 180°, 55°, 120°, 97°

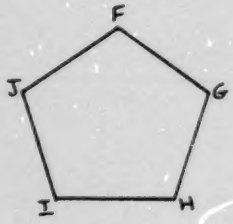
150

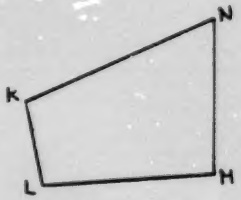
P.O. 7.09.07.03

NAME: _____ CLASS: _____ DATE: _____

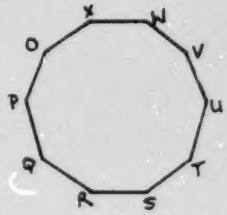
Identify each regular polygon.

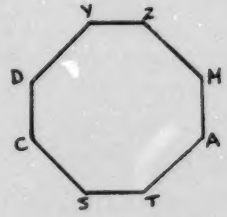


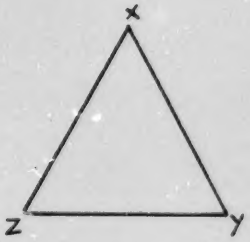




_____ _____ _____







_____ _____ _____

151

P.O. 7.09.07.04

NAME:_____ CLASS:_____ DATE:_____

A. Find the sum of the interior angles and each interior angle for a regular polygon of

a. 9 sides

b. 10 sides

B. What steps would be used to find the number of degrees in the sum of the angles of any polygon? In each interior angle of a regular polygon?

152

P.O. 7.01.07.01

NAME:_____ CLASS:_____ DATE:_____

List the members of each set described below.
Write your answers in set notation.

1. {The months with 31 days}
2. {Factors of 6}
3. {Odd numbers between 36 and 42}
4. {Prime numbers between 36 and 42}
5. {Whole numbers less than 25 that are divisible by 4}
6. {The months in the year that begin with the letter F}
7. {Even numbers between 1 and 11}
8. {The states in the United States completely surrounded by water}
9. {Prime factors of 30.}
10. {Whole numbers greater than 20 and less than 26}

153

P.O. 7.01 07.02-03

NAME: _____ CLASS: _____ DATE: _____

I. Identify each of the following sets as being finite or infinite.
II. Use set notation to list the members of each set. Use the three dots wherever necessary.

I.

1. The set of all the grains of sand on a given beach. _____
2. The set of all even numbers greater than 10. _____
3. The set of all fractions between the numbers 8 and 9. _____
4. The set of all people now alive on earth. _____
5. The set of whole numbers greater than 5. _____
6. The set of integers less than 5. _____
7. The set of whole numbers from 1 to 10,000. _____

II.

1. 1. {All even whole numbers} = _____
2. {All whole numbers} = _____
3. {All odd whole numbers} = _____
4. {All odd whole numbers up to 3000} = _____
5. {All fractions greater than 1 and less than 2 whose denominator is 17} = _____

154

P.O. 7.01.07.04.-05

NAME: _____ CLASS: _____ DATE: _____

I. In the blanks below, write the letter of the set in column B which is equal to the set after the blank in column A.

II. In the blanks below write the letter of the set in column B which is equivalent to the set after the blank in column A.

I.

Column A	Column B
___1. {3, 15, 8, 12}	A. {12, 8, 15, 3}
___2. {The set of whole numbers greater than 10 and less than 5}	B. {13, 17, 19}
___3. {The set of all three digit numbers}	C. {2, 3}
___4. $\{\frac{1}{4}, \frac{1}{2}, \frac{3}{4}\}$	D. {0, 3, 6, 9}
___5. {Prime numbers between 12 and 20}	E. ∅
___6. {Prime factors of 6}	F. {20, 19, 18, 17}
___7. {Digits in the number 321}	G. {5, 6, 7}
___8. {Whole numbers divisible by 3}	H. {100, 101, 102, ..., 999}
___9. $\{\frac{20}{4}, \frac{30}{5}, \frac{42}{6}\}$	I. {1, 2, 3}
___10. {1, 2, 3, 4,...,20}	J. {0.25, 0.5, 0.75}

II.

___1. {4, 5, 6}	A. {The set of legs on a normal dog}
___2. {A,B,C,D,E,F,G}	B. {2,3,5,7,11,13,17}
___3. $\{\frac{7}{8}, \frac{8}{9}, \frac{9}{10}, \frac{10}{11}\}$	C. {10,20}
___4. {Wheels on a bicycle}	D. {A, B, C}

155

P.O. 7.01.07.06

NAME: _____ CLASS: _____ DATE: _____

Tell whether the following sentences are true or false.
Correct any false statement to make it true.

1. There is an odd number between every pair of even numbers.

2. There is an even number between every pair of odd numbers.

3. One more than any even number makes an odd number.

4. One more than any odd number makes an even number.

5. The sum of any two odd numbers is an even number.

6. The product of any two odd numbers is an even number.

7. The sum of any odd and any even number is an even number.

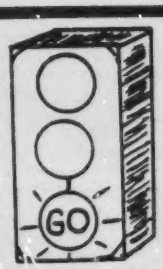
8. The product of any odd and any even number is an even number.

156

P.O. 7.01.08.01

NAME: _____ CLASS: _____ DATE: _____

Answer the questions using set A.



A. $0 = \{1,3,5,7,9,11\}$

1. What is the subset of all numbers divisible by 3?

2. What is the subset of all prime numbers?

3. What is the subset of numbers divisible by 1?

4. What is the subset of numbers divisible by 2?

157

P.O. 7.01.08.02

NAME: _____ CLASS: _____ DATE: _____

Use the formula 2^n to find the number of subsets in a given set.

Set	Number of Elements in the Original Set	Number of Subsets
T= 0, 1		
X= Judy, Sara, Maria		
Y= a, b, c, d, e		
M= 1, 3, 5, 7		

* How many subsets in a set with 6 elements, 7 elements?

**How many subsets in the set of counting numbers?

158

P.O. 7.01.08.03

NAME: _____ CLASS: _____ DATE: _____

Determine which are disjoint sets. Draw a Venn diagram to represent one of the disjoint sets.

Draw a Venn diagram to represent one of the disjoint sets.

1. X = {1, 3, 5, 7} Y = {2, 4, 6, 8} _____

2. A = {3, 6, 9, 12} B = {6, 8, 12, 18} _____

3. S = {a, b, c,} T = {x, y, z} _____

4. N = {Sara, Jane, Steve} M = {Jose, Robert, Steve Dave}

_____

5. C = {The set of triangles} R = {The set of rectangles}

_____

6. A = {The set of counting numbers} I = {The set of negative integers}

_____

159

P.O. 7.01.08.04

NAME:_____ CLASS:_____ DATE:_____

Write a subset for each set. Draw a Venn diagram to show each set sets and subsets.

Set	Subset	Venn Diagram
1. A= Maria, Judy, Yvette, Susan		
2. B=		
3. X=		
4. C= red, white, blue, green, black		
5. T= The New York Yankee's		

160

P.O. 7.01.08.05

NAME: _____ CLASS: _____ DATE: _____

Use Venn diagrams to show union of two sets and list the union in set notation.

1.

$S = \{s, a, n, d\}$

$B = \{b, o, x\}$

2.

$X = \{h, o, r, s, e\}$

$Y = \{b, a, c, k\}$

3.

$L = \{$blue, brown, red, black$\}$

$Q = \{$white, yellow, red, green$\}$

4.

Make your own pair of sets.

161

P.O. 7.01.08.06

NAME:_____ CLASS:_____ DATE:_____

Use a Venn Diagram to express the intersection of two sets.
List the intersection using the symbol N.

1. C= {h,i,s}
   D= {s,t,o,r,y}

2. E= {m,i,s,t}
   F= {t,a,k,e}

3. Make your own two sets.

P.O. 7.01.08.07

NAME:_____ CLASS:_____ DATE:_____

Find the "Least Common Multiple" (L.C.M.)

1. $X = \{3, 6, 9, 12 \ldots\}$

   $Y = \{4, 8, 12 \ldots\}$

   $X \cup Y = \{\quad\}$

   L. C. M. = $\{\quad\}$

2. $A = \{8, 16, 24 \ldots\}$

   $B = \{12, 24 \ldots\}$

   $A \cup B = \{\quad\}$

   L. C. M = $\{\quad\}$

3. $M = \{4, 8, 12, 16 \ldots\}$

   $N = \{8, 16 \ldots\}$

   $M \cup N = \{\quad\}$

   L. C. M.= $\{\quad\}$

4. $S = \{12, 24\}$

   $T = \{10, 20\}$

   $S \cup T = \{\quad\}$

   L.C.M.=$\{\quad\}$

163

P.O. 7.01.09.01

NAME:_____ CLASS:_____ DATE:_____

Priming My Way Home

Can you find your way home? Move from start to home by following a path of prime numbers. Begin at the starting point with "2". Find the next prime number by moving vertically, horizontally or diagonally. Join each newly found prime number in order to form a chain of prime numbers from "start" to "home."

						81	44	36	26	18	76	80	40	28	33	52	22	86
						27	51	68	22	89	41	31	89	13	17	68	50	75
						70	97	23	61	83	46	27	34	96	43	77	54	36
Start →	②	29	67	57	10	52	7	24	62	10	65	20	92	30	61	69	93	10
	22	90	23	83	97	17	19	9	84	48	52	14	58	17	73	82	48	24
	65	58	86	42	24	81	46	51	34	22	35	69	50	27	83	97	2	45
	74	42	68	34	55	16	82	87	28	84	14	39	85	46	26	10	5	12
	52	25	33	20	6	39	46	32	14	90	58	40	12	28	42	23	29	88
													72	48	71	43	18	14
													58	27	97	32	51	57
													70	44	43	86	84	27
													84	18	31	23	17	64
													39	36	60	6	29	⑦③

Home

P.O. 7.01.09.02

NAME: _____ CLASS: _____ DATE: _____

Write the prime factors of each number.
Order the factors.

		Factors	Order of Factors
1) 90	=	2 x 3 x 5 x 3	2 x 3 x 3 x 5
2) 36	=	_____	_____
3) 100	=	_____	_____
4) 144	=	_____	_____
5) 210	=	_____	_____

165

P.O. 7.01.09.03

NAME: _____ CLASS: _____ DATE: _____

Write the prime factor of each number using exponential notation.

	Number =	Factors =	Factors in exponential form
1)	12 =	2 x 2 x 3	2^2 x 3
2)	60 =		
3)	24 =		
4)	311 =		
5)	78 =		

P.O. 7.01.10.01

NAME: _____ CLASS: _____ DATE: _____

Find the square of the following numbers.

6 squared is 6^2 = 6 X 6 = 6^2 =	3 squared is 3^2 = 3 X 3 = 3^2 =	11 squared is 11^2 = 11 X 11 = 11^2 =	14 squared is 14^2 = 14 X 14 = 14^2 =
12^2 =	9^2 =	10^2 =	8^2 =
15^2 =	24^2 =	6^2 =	17^2 =
1.1^2 =	1.5^2 =	20^2 =	18^2 =

P.O. 7.01.10.02

NAME: _____ CLASS: _____ DATE: _____

State the square for each number.

1 1

5 _____

8 _____

15 _____

6 _____

12 _____

7 _____

10 _____

3 _____

2 _____

13 _____

14 _____

168

P.O. 7.01.10.03

NAME:_____ CLASS:_____ DATE:_____

Find the square root of each perfect square.
Color or shade it in.

PLAY WHIZO!

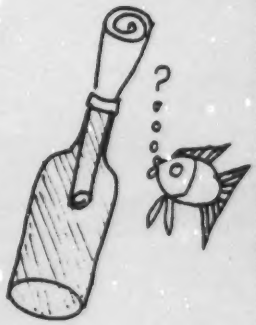
W	H	I	Z	O
18	49	24	16	12
32	14	28	46	50
6	84	★	45	10
25	80	42	90	64
200	81	100	225	56

P.O. 7.01.10.04

NAME: _____ CLASS: _____ DATE: _____

Find the square root of each. Determine its letter value in the code box. Write the message.

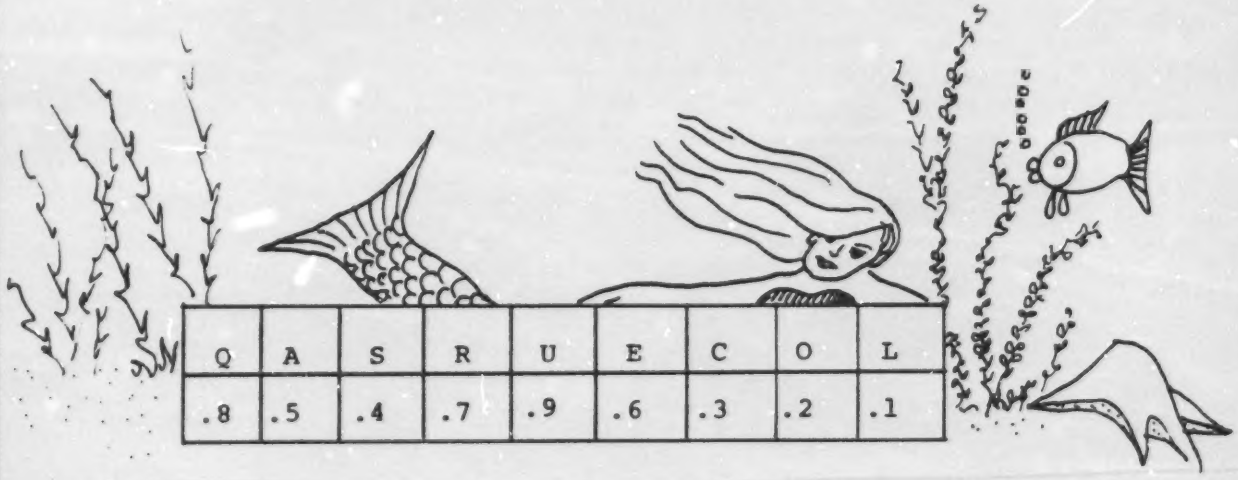
Can You Find the Message?



$\sqrt{.16}$	$\sqrt{.64}$	$\sqrt{.81}$	$\sqrt{.25}$	$\sqrt{.49}$	$\sqrt{.36}$	$\sqrt{.16}$
answer: .4						
letter: S						

$\sqrt{.25}$	$\sqrt{.49}$	$\sqrt{.36}$

$\sqrt{.09}$	$\sqrt{.04}$	$\sqrt{.04}$	$\sqrt{.01}$



Q	A	S	R	U	E	C	O	L
.8	.5	.4	.7	.9	.6	.3	.2	.1

170

P.O. 7.01.10.05

NAME: _____ CLASS: _____ DATE: _____

Solve each problem. Show all work.

1) The side of an area of land is 12 m. How much fencing will be needed to enclose the land if all the sides measure the same length?

2) Find the length of the side of a square national forest whose area is 6400 km^2?

3) A microscopic slide is divided into squares, the area of each square is 25 m^2. What is the length of one side of the square?

4) The students participating in the school fair must build their booths in the schoolyard which is a square. If one side is 90 ft. in length, how much space is available for the fair?